Future Problem Solving Program International (FPSPI)

Program Evaluation Report

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Section I: Introduction and Overview

In this report, we present the rationale, design, and results of a national program evaluation study of the Future Problem Solving Program International (FPSPI). This program evaluation project was conducted by the Center for Creative Learning, and addressed the following three major themes:

1. **Support.** What evidence substantiates claims regarding the benefits of the program for its participants?

2. **Strengthen.** What evidence informs and guides the program in identifying key areas of improvement or innovation?

3. **Promote.** What evidence documents the program's credibility and value in ways that may augment and support marketing and promotion to prospective participants or sponsors?

The evaluation plan also took into account several key factors, including the program's goals and objectives, the identification of key stakeholders and sources of data, the program's guiding assumptions and values regarding research and evaluation, and the resource committed to the plan.

FPSPI's Goals and Objectives. The program's stated goals guided us in framing the major questions of concern for the evaluation. The stated educational purposes of FPSPI are to "motivate and assist participants to:"

- develop and use creative thinking skills

- learn about complex issues which will shape the future

- develop an active interest in the future

- develop and use written and verbal communication skills

- learn and utilize problem-solving strategies

- develop and use teamwork skills

- develop and use research skills

- develop and use critical and analytical thinking skills.

Identification of Key Stakeholders and Sources of Data. The key stakeholders identified as the focus for this evaluation were: participating students in the program (and their parents), coaches, and Affiliate Directors. In addition, the opportunity for access to a small sample of "alumni" (former student participants in the program) added an additional stakeholder group to the scope of the project.

Guiding Values and Assumptions. We were guided by the values of data-driven evaluation and responses provided directly by key stakeholders to the evaluation team. We also proceeded on the assumption that, throughout the program today, internet access (using a web-based survey provider) would not create an obstacle to unbiased response opportunities, and that the anonymity of responses made possible by that survey approach would contribute to confidentiality (which we also valued as a matter of responsible evaluation practice). Program evaluation using survey research always involves a challenging balance between comprehensiveness of questions and convenience of response; as surveys increase in length, the risk of lower response rates is heightened. In consultation with FPSPI's administrative leaders and research committee, and consistent with our past experience with other programs, we made the decision to use a comprehensive set of survey questions. We assumed that we could still strike a successful balance of richness of data and an adequate response pool upon which to formulate conclusions and recommendations.

Resource Commitments. The final factor that influenced planning and project design involved resource commitments. Despite the importance and value of evaluation data to guide the program, as a not-for-profit organization with a primary commitment to conducting programs to serve young people, FPSPI did not bring unlimited resources to a project of this kind. It was important, therefore, to be realistic about the nature and scope of evaluation activities that could be conducted within the budget constraints of the project. For example, resources did not permit stipends of any kind to be offered to survey respondents, and we were not able to incorporate an international sample of structured personal interviews into the evaluation design. Given the resources available, in collaboration with the FPSPI leadership, we concluded that the scope of the present project would be limited to survey data. (We should note that this decision is also consistent with common practices in evaluations of other non-profit programs.)

Scope of Major Evaluation Questions

We identified three types of evaluation questions as directly relevant in scope to the goals of *supporting, strengthening,* and potentially *promoting* the program. These were questions that investigated the extent to which key stakeholders:

1. Report that the program does what it purports to do;

2. Describe the program's perceived strengths and limitations;

3. Provide anecdotal (self-report) evidence of the impact of the program.

Evaluation Tasks

Our major tasks during this project were:

1. Designing Survey Instruments. We designed survey instruments relating to FPSPI program goals and the participants' experiences in the program. Each instrument focused on one set of key stakeholders: (a.) parents; (b.) coaches; (c.) students; (d.) Affiliate Directors; and (e.)

an alumni sample. After we drafted the initial prototypes of each survey, we shared it with selected program leaders for feedback, gathered preliminary "pilot" data from a small sample of stakeholders (to ensure readability as well as procedural and content clarity), and prepared the survey for on-line data collection.

      2. Obtaining Survey Data. Our original plan was to define a stratified sampling plan to ensure a broad, representative sample of teams (including both U. S. and international participants). Through our initial consultations with the FPSPI leaders, we obtained data regarding 2009-10 teams registered by Affiliate. However, it became evident that there were unanticipated drawbacks to the original intent of drawing a stratified random sample of teams. First, we learned that there is no universal, standard, centralized team registration mechanism across the program, and that policies and procedures also vary among Affiliates. Second, we learned that "team" is widely treated as a dynamic and fluid construct throughout the program. In some places, and at some times, intact teams may be formed and remain together over a program year (or longer). However, in other places, at other times, participation in the program may include many more young people (often as part of school classes or enrichment programs), and teams may be formed (and re-formed) at varying times throughout the year. Thus, the "teams" that existed at one point during the year may change to a varying degree throughout the year. It was clearly not feasible to treat "team" as a consistent, stable sampling unit for the evaluation. Third, we learned that not all Affiliates offer all three basic program components (GIPS, CmPS, and Scenarios) at all levels, every year, or in any year. Fourth, coaches are not "attached" to a specific team (given the dynamic nature of team formulation), nor do they work with only one component of the program in a consistent strategy throughout the program. Finally, young people may participate in one or more core components of the program in any year.

Given the realities of program participation, we decided that the best strategy would be to invite *all* coaches throughout the program to participate in the survey, along with the young people with whom they worked in the program and their parents. In the event of an unusually large response, we could decide whether to use all responses received, or formulate a stratified sample by selecting subsets of responses according to a systematic design from among the entire pool of respondents. In survey research, a broadly representative sample of key program units (in this case, Affiliates) is more important to the project than sheer number of responses in itself. In addition, in the absence of a centralized program-wide participant registration process, it was evident that we would need to work with and through the Affiliates to issue invitations to participate in the surveys. Among the Affiliates, we found different responses, for a variety of reasons, in willingness and/or ability to provide us with databases of coaches' names and email addresses. Although we would have preferred to distribute the invitations to participate directly from our office, the final decision was that the International Office would request that Affiliate Directors distribute the appropriate information and survey invitations to their own lists of coaches. We completed the invitation and survey response instructions and sent them to the International Office for distribution through the Affiliate Directors on January 26, 2011. The online surveys were open for responses through February 20, 2011. So, depending on the dissemination of the invitation letters by the Affiliate Directors to the participants in their Affiliates, coaches, students, and parents had a "window" of approximately three weeks in which to respond. We followed the initial contact with Affiliate Directors with multiple reminders from the International Office, and an email from our office to Affiliate Directors in locations from whom we observed few or no responses having been received prior to the survey closing dates. For the alumni sample, the International Office provided us with a list of names and email

addresses, and we sent direct email invitations and instructions to each person on that list, followed by two reminder emails, with the same survey opening and closing dates.

The end result of the sampling procedure's dependence on a dispersed approach to survey invitations, however, is that we are unable to verify independently whether all Affiliates disseminated the information to all coaches, included all the appropriate details, or carried out the invitations in a timely and encouraging manner (while we did keep in mind that each Affiliate Director had many other concurrent responsibilities beyond this project). Given the potential importance and value of evaluation evidence to the program, we can only assume that these tasks were carried out in an efficient and effective manner among all the Affiliates.

3. Data Analysis and Report. From February 21, 2011 through June, 2011, we reviewed and checked all survey responses. Since the survey invitations were not sent by email directly from the survey website (which would have potentially compromised the anonymity of minor respondents), it was not possible for a person to start the survey, exit the survey site, return at another time and resume where he or she he had previously left off (and the instructions noted that restriction), it was not possible to distinguish partial responses from those that had been started, discontinued, and resumed later. Therefore, we were able to use only complete survey responses. We also checked for instances in which individuals responded to the incorrect survey form, fully duplicated responses, or other irregularities that rendered responses unusable. (Four adults incorrectly responded to the student survey, and several current students inadvertently responded to the alumni survey.) We coded all responses and prepared the data for review and analysis. This report includes the following sections:

        Section II: Description of the Sample

        Section III: Results from Affiliate Directors

Section IV: Results from Coaches

Section V: Results from Students

Section VI: Results from Parents

Section VII: Results from Alumni

Section VIII: Cross-sample Comparisons

Section IX: Comparisons of Program Components

Section X: Discussion and Recommendations

    4. Communicating Survey Results. We are submitting this written report to the International Office leadership, the Research Committee, and the Board of Trustees. In addition, we will, upon request, make oral presentations to the Board of Trustees, the FPSPI Governing Council, and to other key stakeholder groups that may be identified through our collaborative discussions. We have also prepared and submitted an Executive Summary for dissemination by the FPSPI leadership, and a brief PowerPoint presentation summarizing the project, results, and recommendations. We are open to working collaboratively with FPSPI to disseminate the results throughout the program and, in appropriate ways, to other educational audiences in the form of conference presentations and/or journal publications.

Section II: Description of the Sample

Table 1, on the following page, summarizes the number of respondents and their Affiliates for the coach, student, and parent surveys. (We describe the Affiliate Director sample in Section III and the alumni sample in Section VII.) We received 220 complete responses from coaches in 33 Affiliates, 633 students from 27 Affiliates, and 195 parents representing 23 Affiliates. For brevity, any Affiliate that is not named in Table 1 is one from which we did not receive responses from any of these three stakeholder groups (coaches, students, or parents). One coach response indicated an Affiliate as "Japan [JP}" and one student and three parents gave their geographic location as "Malaysia [MY]." Although we were unaware of Affiliates in those locations, we had no other data to classify them as representing any other Affiliate, but since their responses were otherwise complete, we included them in the data set.

The samples included representation from both the United States and international participants. Among coaches, 81.8% of the responses were from the U. S., and 18.2% were international. Student responses were 77.6% from the U.S. and 22.4% international, and parent responses were 67.7% from the U.S. and 32.3% international.

Although it was not the case that the largest Affiliates (based on reported data from 2009-10) contributed the largest number of responses, nor even responses in proportion to their size, the eight largest Affiliates all had *some* responses, and 14 of the largest 15 (≥ 100 teams) had *some* representation. Another concern at the outset of the project was that responses from the largest Affiliates would overwhelm respondents from the smaller Affiliates; clearly, that was not the case. We received responses from 17 of the 27 smallest Affiliates (< 100 teams). Given the total distribution of Affiliates across all three stakeholder groups, we decided that it was

appropriate to proceed with the data analysis based on all responses we received, and so no

complete responses were excluded from any of the groups for analysis purposes.

Table 1: Distribution of Respondents By Affiliate

Coaches			Students			Parents		
Affiliate	**Count**	**Percent**	**Affiliate**	**Count**	**Percent**	**Affiliate**	**Count**	**Percent**
AK	2	0.9%	AK			AK		
AL	2	0.9%	AL	11	1.7%	AL		
AU	13	5.9%	AU	40	6.3%	AU	9	4.6%
AZ	9	4.1%	AZ	30	4.7%	AZ	11	5.6%
CA	4	1.8%	CA	15	2.4%	CA	8	4.1%
CT	5	2.3%	CT	67	10.5%	CT	10	5.1%
FL	14	6.4%	FL	57	8.9%	FL	5	2.6%
GA	9	4.1%	GA	22	3.5%	GA	15	7.7%
IA	13	5.9%	IA	20	3.1%	IA	2	1.0%
ID	5	2.3%	ID	7	1.1%	ID	1	0.5%
IN	6	2.7%	IN	15	2.4%	IN	4	2.1%
JP	1	0.5%	JP			JP		
KR	2	0.9%	KR	4	0.6%	KR		
KY	41	18.6%	KY	8	1.3%	KY	4	2.1%
MA	1	0.5%	MA			MA		
ME	2	0.9%	ME			ME		
MI	5	2.3%	MI	7	1.1%	MI	2	1.0%
MN	7	3.2%	MN	6	0.9%	MN	20	10.3%
MO	1	0.5%	MO	23	3.6%	MO	1	0.5%
MS	1	0.5%	MS	10	1.6%	MS	1	0.5%
MT	1	0.5%	MT			MT		
NC	4	1.8%	NC	5	0.8%	NC	4	2.1%
NJ	2	0.9%	NJ	37	5.8%	NJ	9	4.6%
NZ	4	1.8%	NZ	4	0.6%	NZ		
OH	5	2.3%	OH	18	2.8%	OH		
PA	2	0.9%	PA	4	0.6%	PA		
SG	20	9.1%	SG	93	14.6%	SG	51	26.2%
TX	7	3.2%	TX	7	1.1%	TX	7	3.6%
UT	6	2.7%	UT			UT		
VA	2	0.9%	VA	8	1.3%	VA	1	0.5%
WA	6	2.7%	WA	37	5.8%	WA	4	2.1%
WI	14	6.4%	WI	51	8.0%	WI	19	9.7%
WV	3	1.4%	WV	21	3.3%	WV	1	0.5%
			MY	1	0.2%	MY	3	1.5%
None	1	0.5%	None	5	0.8%	None	3	1.5%
	220			633			195	
#Affiliates	33			27			23	

These are # of students, not teams

Section III: Results from Affiliate Directors

We received responses from 34 Affiliate Directors (AD). Since we did not specify that only one "primary" AD should respond, it is possible that some Affiliates in which there might be co-directors or associate directors, more than one person from the same Affiliate responded. Therefore, one should not conclude that 34 different Affiliates are represented. In order to assure respondents of confidentiality, we did not request data that would have identified the respondent or his or her Affiliate or location.

Responses were received from five male ADs (15%) and 29 females (85%). The group was diverse in its range of experience in the AD role. Four (11.7%) reported being in their first year as ADs. Nine (26.5%) reported having one to four years of experience, 10 (29.4%) reported five to nine years of experience, and 11 (32.4%) reported having ten years or more of experience. The group also reported participating (now or previously) in a wide range of other roles in FPSPI. These included 29 (85%) as coaches, 27 (79%) as evaluators, 13 (35%) as Board of Trustee members, seven (21%) as Future Scene writers, and nine (26%) in a variety of other roles. Three (9%) of the ADs indicated that they had participated in FPS themselves as students.

Personal Benefits for ADs

We asked, "What do you consider the personal benefits for you of your involvement in FPSPI?" In descending frequency of selection, the ADs' responses were:

Option	N	%
Enjoy watching FPSers grow as creative individuals	31	91%
Learn to think about things more creatively	29	85%
Apply my experiences here to other situations	27	79%
Feel good about how the FPSers pulled together to deal with difficulties that arose	25	74%
Discover that FPSers can do amazing things on their own	23	68%
Learn about team dynamics	22	65%
Gain an appreciation of my own ability as a creative person	21	61%
Learn or improve organizational skills	21	61%
Learn about time management	17	50%

AD Satisfaction with the Program

We asked, "What is your overall level of satisfaction with the FPSPI program this year?" Using the scale: 1(low), 2 (limited), 3 (moderate), 4 (high), the average was 3.76 representing a highly positive level of satisfaction with the program. No one selected "low" or "limited," eight ADs selected "moderate," and 26 selected "high." Next, we asked, "What is your overall level of personal satisfaction with the workload, time demands, and expectations you experienced in the AD role this year?" The average for this question was 3.09, representing a moderate degree of personal satisfaction with the AD role. None chose "low (1)," four, or 12%, marked "limited (2)," 23, or 68%, selected "moderate (3)," and seven, or 21%, marked "high (4)."

In an open-ended question, we asked, "What are up to five main overall things you like best about being an AD?" We clustered the responses into nine broad categories representing responses made by more than 10% of the AD sample. These categories, along with sample responses from each, are listed below.

> **INTERACTION WITH STUDENTS AND COACHES (19).** Sample responses: the kids, the coaches, the funny answers; seeing students' reactions when they get to Affiliate Bowl, whether they win or not; interacting with coaches, volunteers, students, parents; I'm always the first contact when alumni want to come back - I love their notes and stories; the opportunity to work with outstanding teachers, coaches and students!

> **WORKING WITH POSITIVE ADULTS (16).** Sample responses: Working with such a warm and professional group in my own Affiliate and on Board of Trustees; working with the adults that truly want to grow the Program; working with creative, passionate, energetic people; the people who love FPS like I do are some of my favorite people in the world!!!

> **GUIDING PROCESS LEARNING (14).** Sample responses: teaching teachers or adults the problem solving process to use with students; I love helping teachers figure out how they can deliver FPS to their students; watching the growth of the students and coaches as they succeed with the process; delivering training sessions.

> **PLANNING AND CONDUCTING AFFILIATE ACTIVITIES (13).** Sample responses: putting on a great state event for participants; satisfaction of a well-run State [Affiliate] Bowl; being creative with program administration and presentations; always something new; to be able to develop the program according to the needs of the local

scenario; the autonomy that my Board of Directors gives me to administer the work of our Affiliate; learning about new topics each year - especially as I coordinate seminars on those topics for students and coaches; planning new projects for the participants.

GENERAL VALUE OF THE PROGRAM (11). Sample responses: I believe the program has strong merit and deserves to be implemented in far more schools; opportunity to be involved in a program I believe in; showcase the FPS Program and students whenever possible. "SUPPORTING FPSPI - IT'S A GREAT PROGRAM: [caps in original]; wonderful program!

MAKING A DIFFERENCE (11). Sample responses: making a difference in so many young lives; seeing student and coach growth in problem solving; the biggest thrill is hearing from the students about the significant impact it has on their lives; recognizing the impact the program can have on communities; watching our students progress, grow and then use their problem solving strategies in the work force as adults!

PERSONAL GROWTH AND BENEFITS (11). Sample responses: what I learn myself as we go through the year; the opportunities it gives me to be creative - sadly lacking in my 'real' job!!; the fact that I have discovered the passion in my life; continuing to grow in my own FPSP journey; the opportunity to problem solve myself through vital issues … [and one who wrote, "the honorarium."]

SUSTAINING A VALUABLE PROGRAM (6). Sample responses: the challenge; coordinating and administering such a valuable program that impacts the lives of students in so many ways; I am keeping this program going for Dr. Torrance; knowing that my efforts are keeping FPS alive in times of budget cuts.

THE IC/INTERNATIONAL EXPERIENCE (5). Sample responses: communication with people all over the world; meeting the international participants at IC; the opportunity to have a multi-lingual students participate in the language of their choice (besides English).

In another open-ended question, we asked: "What are up to 5 things you find most challenging about being an AD?" We clustered the responses into 12 broad categories representing responses made by approximately 10% or more of the ADs. There were also several responses that were not categorized. The response categories are presented below in descending order of frequency, with sample responses.

RECRUITMENT AND PROMOTION OF PROGRAM (22). Sample responses: advertising; recruiting new participants; need to be able to promote the program more effectively; making new contacts and keeping them involved; school systems do not see the worth of the program; if the area is not familiar with FPS, it is so difficult to get the word out and make people aware of its potential and value; growing the program; if the program isn't already in schools, it is so difficult to sell it; it is hard work for coaches, complex; I find it very frustrating that it is difficult to even get schools to consider the program… how do I get the message out?

TIME AND TIME MANAGEMENT (19). Sample responses: finding time to do the work that being an AD requires on top of having a different, full-time job; not having time to promote the Affiliate program like I want to; e-mail has changed the nature of the job— never a down time; can be stressful as a "second job"; time to keep up with everything: research, training, evaluating; time to complete all of the program competitions as well as planning and conducting the many new projects that we want to conduct for our participants.

STRESS OF MULTIPLE DEMANDS AND DEADLINES (12). Sample responses: it is often frustrating to put in so much time and effort and still not succeed; some initiatives we think of not getting off the ground; keeping all the pieces going; trying to make everyone happy; getting participants to meet deadlines; dealing with hundreds of emails weekly.

FUNDING (11). Sample responses: funding, grant writing; balance management of the Affiliate while trying to maintain the funding for the program with required political activities that are mandated in order to retain our grant funding with the state; finding start-up money for new teams as districts keep cutting funding for programs like FPS.

TRAINING, SUPPORTING COACHES (6). Sample responses: assisting new coaches; fielding questions from coaches; communicating the complexities to new coaches; helping struggling coaches.

EVALUATORS (6). Sample responses: improving evaluation feedback; growing a pool of accredited evaluators; increasing the number of evaluators; building and maintaining a good evaluation team.

AFFILIATE BOWL (5). Sample responses: organizing the state bowl, finding reasonably priced ribbons - argh!; planning Affiliate Bowl; securing a bowl site; preparing materials for competitions.

SUSTAINING PARTICIPATION (4). Sample responses: maintaining school interest in program; recently: loss of participation due to economy.

COMMUNICATION AND DISSEMINATION (4). Sample responses: getting info out; dissemination of information to the people it needs to go to.

TECHNOLOGY (3). Technology; acquiring and using technology; learning new computer techniques.

VOLUNTEERS (3). Having to rely on volunteers for help with the program, and finding they are not always reliable for doing the work or communicating in a timely fashion; finding volunteers; little volunteer help.

REMUNERATION (3). Lack of remuneration; no pay; small Affiliates cannot afford to pay AD's.

Other responses (given by fewer than three respondents) included: scheduling class time with FPS students; confusion with time-age differences (year of participation as for the north /south hemispheres); lack of experience in the process.

Administrative Aspects of the Program

The ADs responded next to this question: "Thinking about the entire FPSPI program, from your perspective as an AD, what strengths do you see? What are some areas that need improvement?" We offered seven statements to which we asked ADs to respond using a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4= agree, and 5= strongly agree). For these seven items, the mean responses ranged from 3.53 to 4.41, and the means were greater than or equal to 4.00 on five of the seven items. The table below presents the mean and the distribution of responses for each item and the chart on the following page summarizes their mean responses for the seven items.

Item	SD	D	N	A	SA
A. There is timely and effective communication among ADs. (3.53)	1	3	9	19	2
B. ADs have timely and effective communication with International Office/Staff. (4.41)	1	1	2	9	21
C. ADs have timely and effective communication with the International Board of Trustees (3.56)	3	1	8	18	4
D. FPSPI provides support materials that are helpful to me as an AD. (4.41)	0	1	1	15	17
E. FPSPI provides support materials that are helpful to our coaches and teams. (4.21)	0	1	4	16	13
F. The cost of participating in FPSPI is reasonable and appropriate. (4.35)	0	1	1	17	15
G. Governing Council meetings are valuable. (4.00)	1	1	6	14	12

	4.41		4.41		4.35	
3.53		3.56		4.21		4

A.   B   C   D   E   F   G
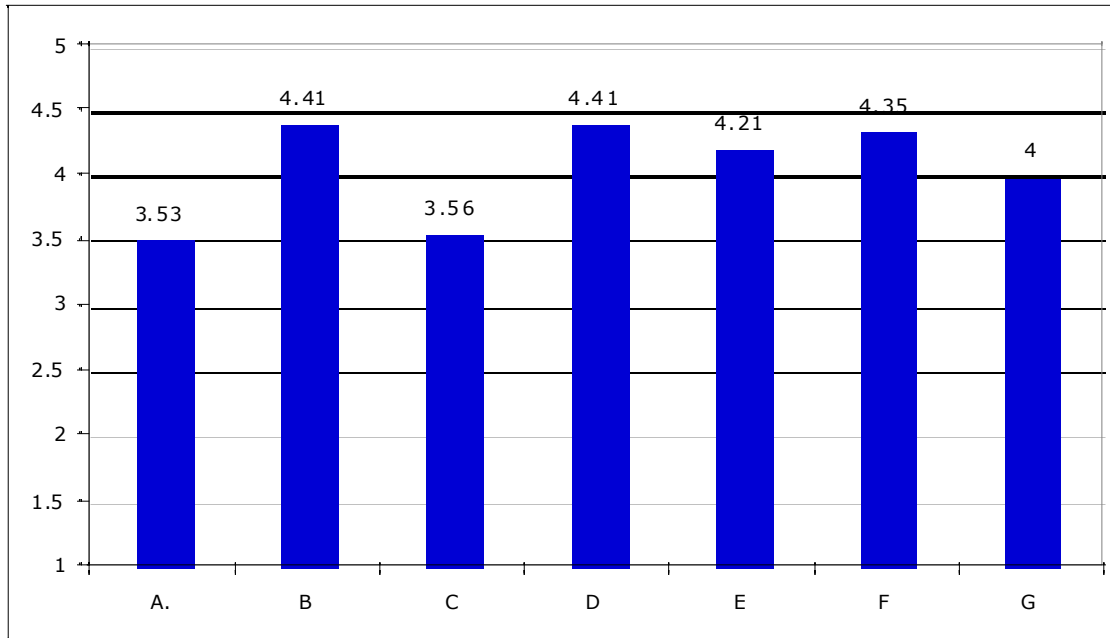
The next set of questions addressed Practice Problems, Qualifying Problems, and

Problems for Affiliate Bowls and IC. From the respondents' perspective as an AD, they

responded to ten statements (using a 1-5, strongly disagree to strongly agree, Likert scale. The

table below presents the distribution of responses for each item and the chart on the following

page summarizes the means for each of the ten items. (Note that, for simplicity of presentation,

since no item had an average score less than 4.0, the chart presents only a partial scale.)

| Item	SD	D	N	A	SA
A. Practice problems are usually interesting. (4.21)	0	1	1	22	10
B. Practice problems are usually challenging. (4.21)	0	0	4	19	11
C. Practice problem evaluation guide is helpful to evaluators. (4.38)	0	1	1	16	16
D. The Qualifying Problem is usually interesting. (4.38)	0	0	1	19	14
E. The Qualifying Problem is usually challenging. (4.44)	0	0	2	15	17
F. Qualifying problem evaluation guide is helpful to evaluators. (4.38)	1	0	1	15	17
G. The Affiliate Bowl Problem is usually interesting. (4.29)	0	0	4	16	14
H. The Affiliate Bowl Problem is usually challenging. (4.41)	0	0	3	14	17
I. The IC Problem is usually interesting. (4.32)	0	1	2	15	14
J. The IC Problem is usually challenging. (4.41)	0	0	2	16	16
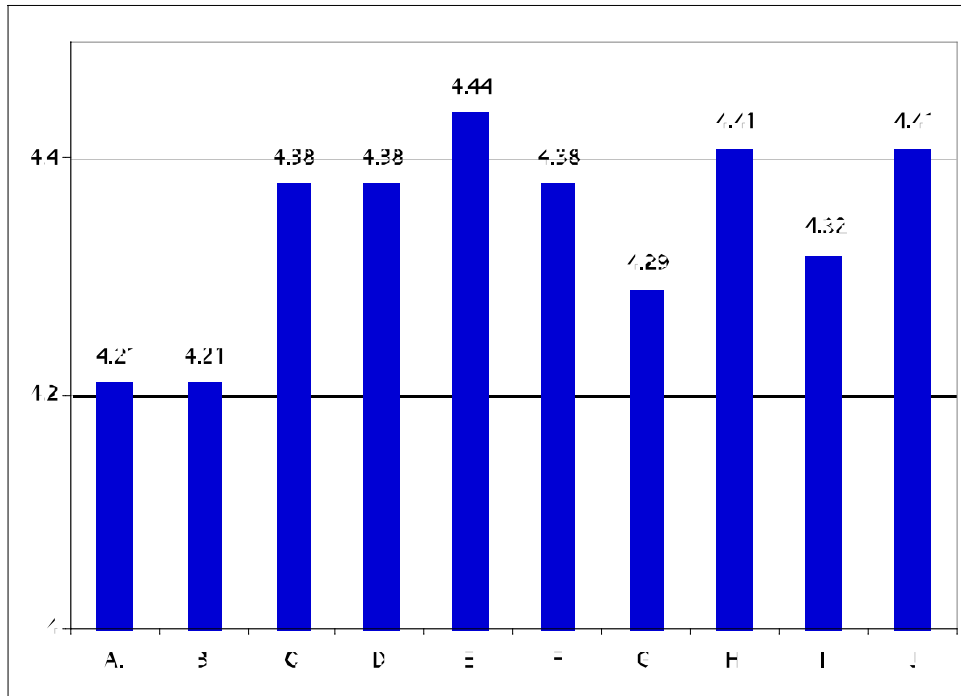
Technology and FPSPI

The role of technology in FPSPI was the focus of ten items in the AD survey, using a five-point Likert scale (from strongly disagree [1] to strongly agree [5]). The table below presents the distribution of responses and the chart summarizes the mean scores for each item.

Item	SD	D	N	A	SA
A. The international (FPSPI.org) website provides helpful information and resources. (4.09)	0	3	4	14	13
B. The international (FPSPI.org) website looks attractive. (3.68)	1	3	7	18	5
C. The international (FPSPI.org) website is easy to navigate and find what I need. (3.44)	2	5	8	14	5
D. FPSPI makes effective use of social networking sites such as Facebook or Linkedin. (2.62)	5	7	18	4	0
E. FPSPI now has effective on-line resources for teams. (3.09)	4	5	12	10	3
F. FPSPI should expand on-line resources for teams. (4.38)	0	0	4	13	17
G. FPSPI now provides opportunities for individuals or teams to "do" FPS on-line. (2.65)	7	7	13	5	2
H. FPSPI should create or expand opportunities for individuals or teams to "do" FPS on-line. (4.35)	0	1	5	9	19
I. FPSPI now provides opportunities for individuals or teams to conduct research on-line. (3.29)	2	4	14	10	4
J. FPSPI should create or expand opportunities for individuals or teams to conduct research on-line. (3.97)	1	1	7	14	11
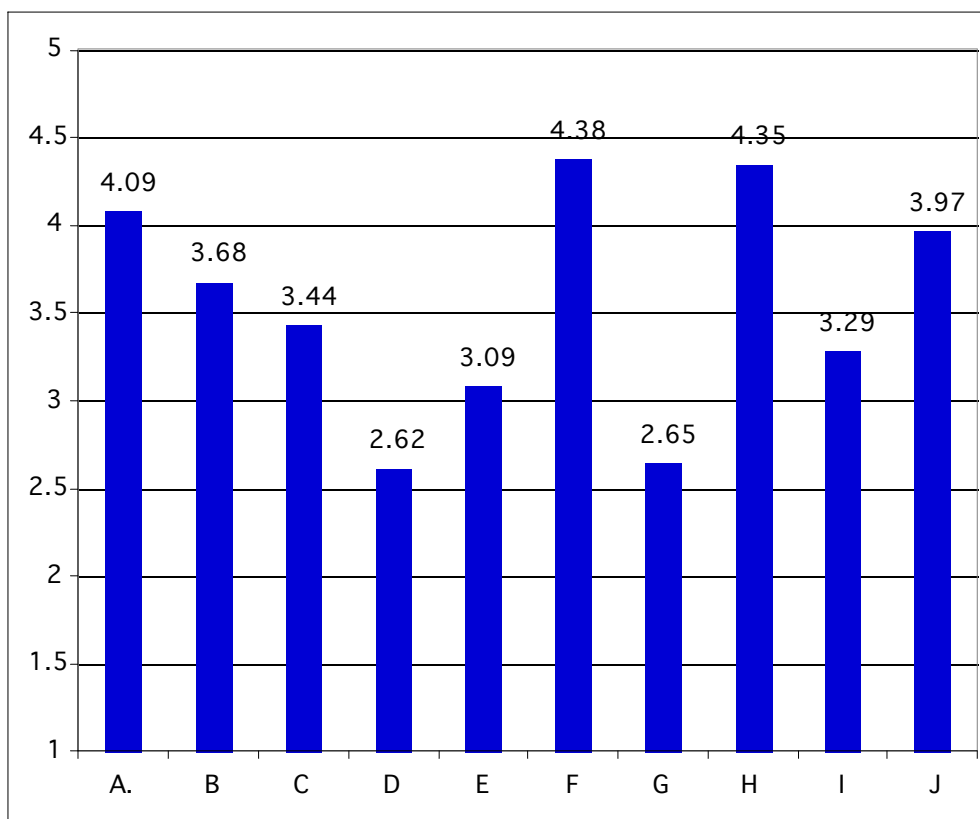
International Conference (IC) Strengths

In an open-ended item, ADs were asked to identify "up to five main strengths specifically relating to IC." The responses clustered into ten general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

> **SPECIFIC PROGRAM EVENTS AND ACTIVITIES (26).** Sample responses: multiple activities for participation; the variety of activities; the spirit of sharing; IC activities are geared for the kids. Examples of some specific activities and events that were cited by respondents include: talent show (7); Opening and Closing Ceremonies (5) and Parade of Flags (3); homestays for non-US and the host volunteers; cultural exchange (3); CmPS Fair showcases wonderful work that kids are doing (3); presentation of Action Plan (2); adult competition, the mixer - icebreaker, the meeting of coaches and parents, good facilities.

> **INTERNATIONAL EXPERIENCE AND NETWORKING (15).** Sample responses: to be able to see Dr. Torrance's dream expand to so many students from so many places around the world is inspiring; the students and coaches love meeting other FPSers from around the world.

ORGANIZATION, STAFF COMMITMENT AND EFFORT (15). Sample responses: the FPSPI office staff and the ADs work hard to make IC work; well planned; well organized; FPSPI's leadership in consolidating and updating all aspects of FPSPI; the organization and planning that the IC staff put into preparation; friendly, helpful and responsive staff; the Staff really cares. It's more than a job.

LOCATIONS AND TRAVEL (11). Sample responses: visits to different sites; experiencing a college/university campus; traveling with other students and adults; interesting places; college campus experience for kids; the opportunity to travel to different places; some of our students will not have traveled further from home than the city that hosts our state finals.

CHALLENGE, HIGH-LEVEL COMPETITION (10). Sample responses: the challenge of high-level competition; the air of competition alongside comradeship; friendly competition; the competition is exciting and thrilling for the teams and individuals that advance.

COLLABORATION AMONG ADs (9). Sample responses: ADs getting together to share and learn about programs and education; meeting and talking with the AD's from around the world; ADs able to learn from other ADs firsthand.

ADULT NETWORKING (9). Sample responses: meeting with committees (especially evaluation) to discuss and debate the latest issue; coaches getting to meet other coaches, sharing techniques and tips; the opportunity to meet and share experiences with coaches from other states-countries; the opportunity for our coaches to meet others and gain the international experience.

INTERACTION OF HIGH-ABILITY, LIKE-MINDED PEOPLE (8). Sample responses: finding out that is all right to be smart and creative; interaction with so many gifted students and adults; seeing others who love the challenges of problem solving; it provides coaches and students a place to meet other like minded people; the opportunity for academically talented students to see others like them achieving great things.

STUDENT NETWORKING (8). Sample responses: getting to know others; face-to-face networking for kids; the opportunity to meet and make new friends.

COLLABORATION FOR ENJOYABLE EXPERIENCE (7). Sample responses: everyone pitches in to help at IC; feeling part of the whole program; positive experience for participants; creating an enjoyable event for students.

Several other responses, given by fewer respondents, included: Cost very reasonable; the constant reevaluation and improvement of all aspects of the program; the ability to adapt to a new situation and deal with any new stresses that may come with the competition experience; growth comes from these new challenges; opportunity to learn about new topics and projects; good resources; good communication; sense of history-- Torrance's dream.

International Conference (IC) Areas for Improvement

The next open-ended question asked, "What are up to five areas that need improvement about IC?" This question led to a diverse array of responses. There were 11 categories for which there were responses from 10% or more of the respondents, and a number of additional unique responses. These are summarized below, in descending frequency of response.

SITE OR LOCATION (8). Sample responses: it is not always easy to find an IC site that is easy to navigate and has many things close by for students and coaches to do; location - can we see other parts of US aside from the Midwest; go to different places instead of several in same area; it needs to become truly international and have an IC abroad.

STAFFING AND WORKLOAD (7). Sample responses: increased staff to handle burden of work related to ZippyMart, FPS Central, and troubleshooting; need an IC staff coordinator so that the executive director can spend more time meeting and greeting parents, students and coaches from around the world.

TOURS (7). Sample responses: scheduling of tours; things for kids to do that aren't expensive; more opportunities for tours for CmPS students; not enough time for ADs to do side trips to explore IC site location.

SPONSORSHIPS AND SCHOLARSHIPS (6). Sample responses: would like to see more corporate sponsors; if IC had a sponsor, then maybe the costs could be lower. Higher costs are going to keep teams away; fundraising for scholarships, etc. could be done with large donors through IC; corporate sponsorships to help defray travel costs-expenses for students.

SPEAKERS AND ACTIVITIES (5). Sample responses: provide speakers that interest students; activities for younger students; more structured ways for students to meet others (maybe).

MEALS AND MEAL SERVICE (5). Sample responses: food service not always the best, but often can't be helped; cafeterias...not always large enough and organized to meet the needs of the teams and individuals competing.

EVALUATION AND EVALUATORS (5). Sample responses: the amount of time needed for a non-stressful operation of IC evaluation is too short compared to the amount of time given for the conference–evaluators and the evaluation staff have to work too hard in a short amount of time; consistent evaluations; fair evaluation; making sure there are enough evaluators; we need the electronic booklet and score sheets.

PUBLIC RELATIONS (4). Sample responses: need someone to coordinate Public Relations for IC/ IC needs more of an online and social networking presence; IC needs to do a lot more PR and outreach to get the FPSPI name out there and raise awareness of what we do; IC does not get local or national press. Students doing good work should be news.

FUTURE SCENES (3). Sample responses: more interesting future scene; IC Future Scenes seem to be convoluted.

DORMS (3). Sample responses: cleanliness of dorm rooms for kids; dorm facilities not always great.

REGISTRATION (3). Sample responses: registration process and procedures difficult; parents have many questions not addressed in materials--need to update IC packet.

Other less frequent or individual responses included: not enough time for ADs to interact; more opportunity for ADs to interact socially; organization at GC: some ADs report uninformed or misinformed--not because IO does not prepare them, but they do not prepare themselves; not knowing where your Affiliate teams are located; more consideration for semi-disabled ADs when giving out duties to do; someone from FPSP to meet ADs when they arrive - can be very scary for ADs from overseas first time round; perhaps a change in the schedule to allow GIPS competitions to start just a little later to allow kids to have a little more rest; some rules or guidelines need to be better observed so as not appear to be unfair to some; "crowd" control—moving the number of people effectively.

Global Issues Problem Solving (GIPS) Component

The next set of 12 questions dealt specifically with the Global Issues Problem Solving (GIPS) component of FPSPI. The respondents were asked to rate each of 12 items based on their experience this year. We asked them to "think about the impact on participating students' learning and growth," and to consider the impact of the GIPS component using the scale: 1 = Little or no impact; 2 = Limited impact; 3 = Moderate impact; 4 = High impact; 5 = Exceptional impact. The table on the following page presents the items, the average response from the ADs, and the distribution of ADs' responses for each item. Then, the chart summarizes these results from lowest to highest. (We will compare these data with results from the other samples in the "Cross Sample Comparisons" section of this report.

A. Fostering creative thinking (the ability to generate many, varied, and unusual options) (4.29)	0	0	3	18	13
B. Fostering critical thinking (the ability to sort and sift information or to focus one's thinking) (4.50)	0	0	0	17	17
C. Using a deliberate process for Creative Problem Solving methods and tools (4.38)	0	1	3	12	18
D. Developing teamwork and collaboration (working together, cooperating with each other) (4.59)	0	0	1	12	21
E. Developing leadership skills (4.15)	0	3	3	14	14
F. Developing research and inquiry skills (the ability to gather information from many and varied sources) (4.21)	0	2	2	17	13
G. Enhancing the skills of preparing and delivering materials and/or presentations that communicate ideas effectively (4.09)	1	0	3	21	9
H. Showing evidence that team members are able to apply FPS skills in other situations (3.91)	0	2	8	15	9
I. Developing skills in listening and following directions (3.82)	0	3	8	15	8
J. Developing the skills needed to manage time effectively (4.21)	0	0	6	15	13
K. Learning about complex issues that will shape the future (4.68)	0	0	0	11	23
L. Developing an active interest in the future (4.53)	0	0	0	16	18
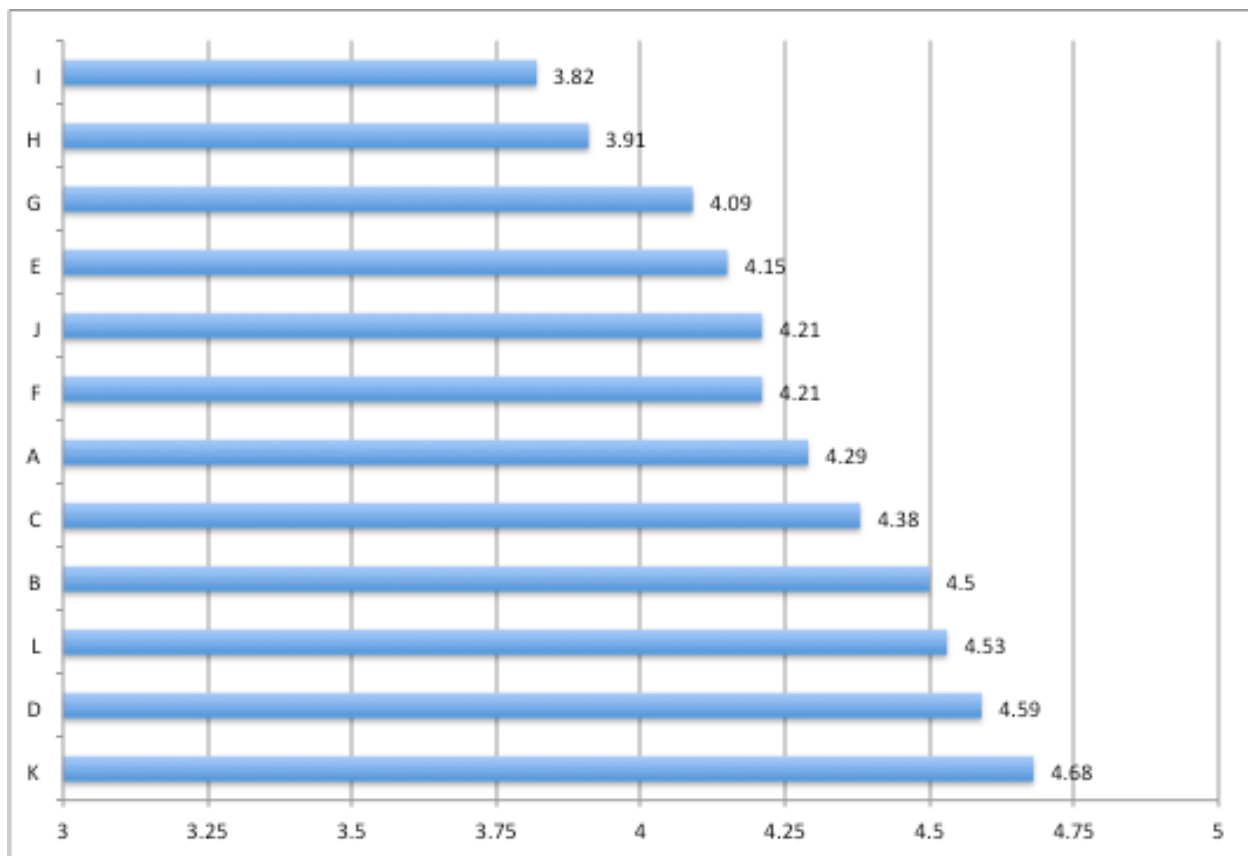
Community Problem Solving (CmPS) Component

We asked whether the respondents' Affiliates offer Community Problem Solving. Thirty respondents (88%) said "yes," and four (12%) said "no." Note that since there may have been more than one response from some Affiliates (with an AD and an Associate, or co-ADs), this does not correspond to a number of Affiliates that offer CmPS. For those whose Affiliate offers CmPS, we asked the same 12 items as for GIPS regarding the impact of CmPS on participating students' learning and growth, with the same 1-5 scale. The table below and the chart on the following page present the responses from the ADs for each of the 12 CmPS items. We will compare these data with results from the other sample groups in the "Cross Sample Comparisons" section of this report.

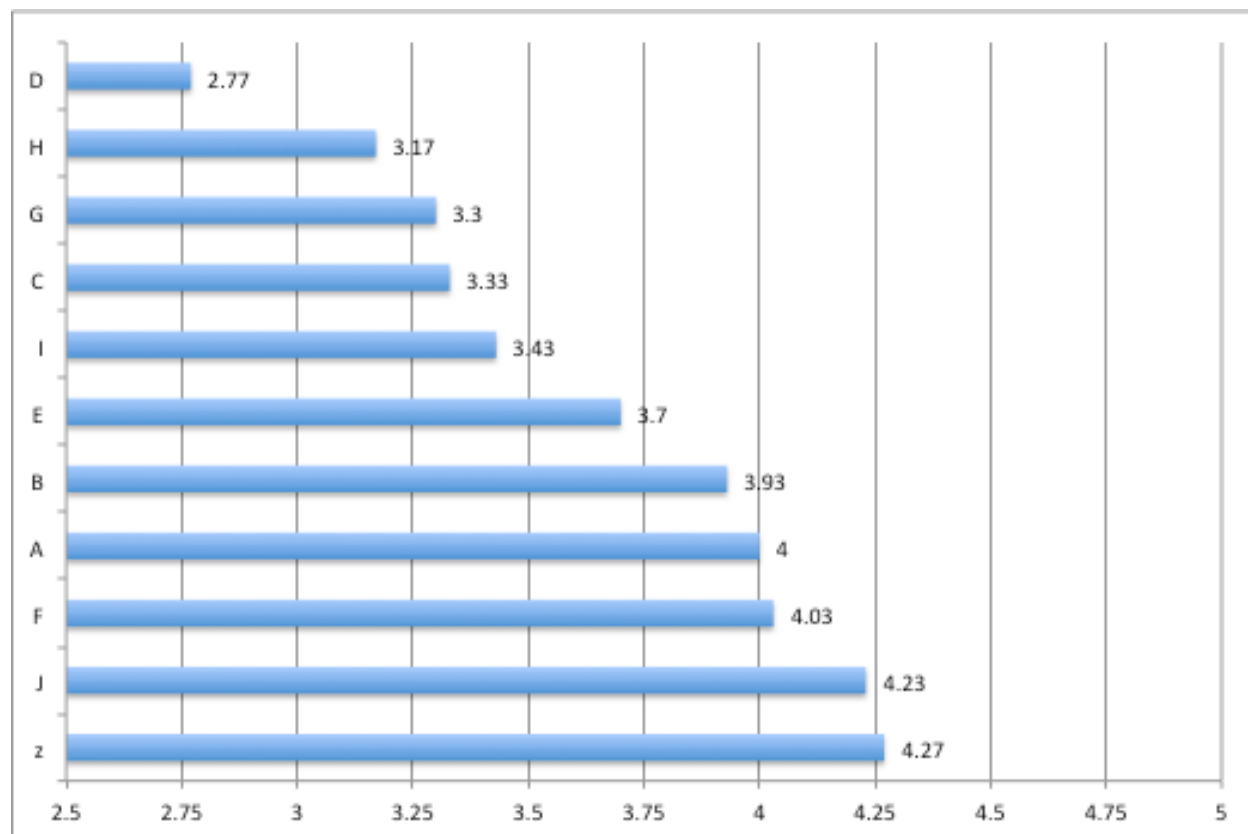|					
A. Fostering creative thinking (the ability to generate many, varied, and unusual options) (4.33)	0	0	3	14	13
B. Fostering critical thinking (the ability to sort and sift information or to focus one's thinking) (4.33)	0	0	3	14	13
C. Using a deliberate process for Creative Problem Solving methods and tools (4.10)	0	1	4	15	9
D. Developing teamwork and collaboration (working together, cooperating with each other)(4.70)	0	0	2	5	23
E. Developing leadership skills (4.63)	0	0	3	5	22
F. Developing research and inquiry skills (the ability to gather information from many and varied sources)(4.23)	0	0	4	15	11
G. Enhancing the skills of preparing and delivering materials and/or presentations that communicate ideas effectively (4.57)	0	0	2	9	19
H. Showing evidence that team members are able to apply FPS skills in other situations (4.57)	0	0	2	9	19
I. Developing skills in listening and following directions (4.07)	0	0	6	16	8
J. Developing the skills needed to manage time effectively (4.37)	0	0	2	15	13
K. Learning about complex issues that will shape the future (4.03)	0	1	5	16	8
L. Developing an active interest in the future (3.97)	0	1	6	16	7
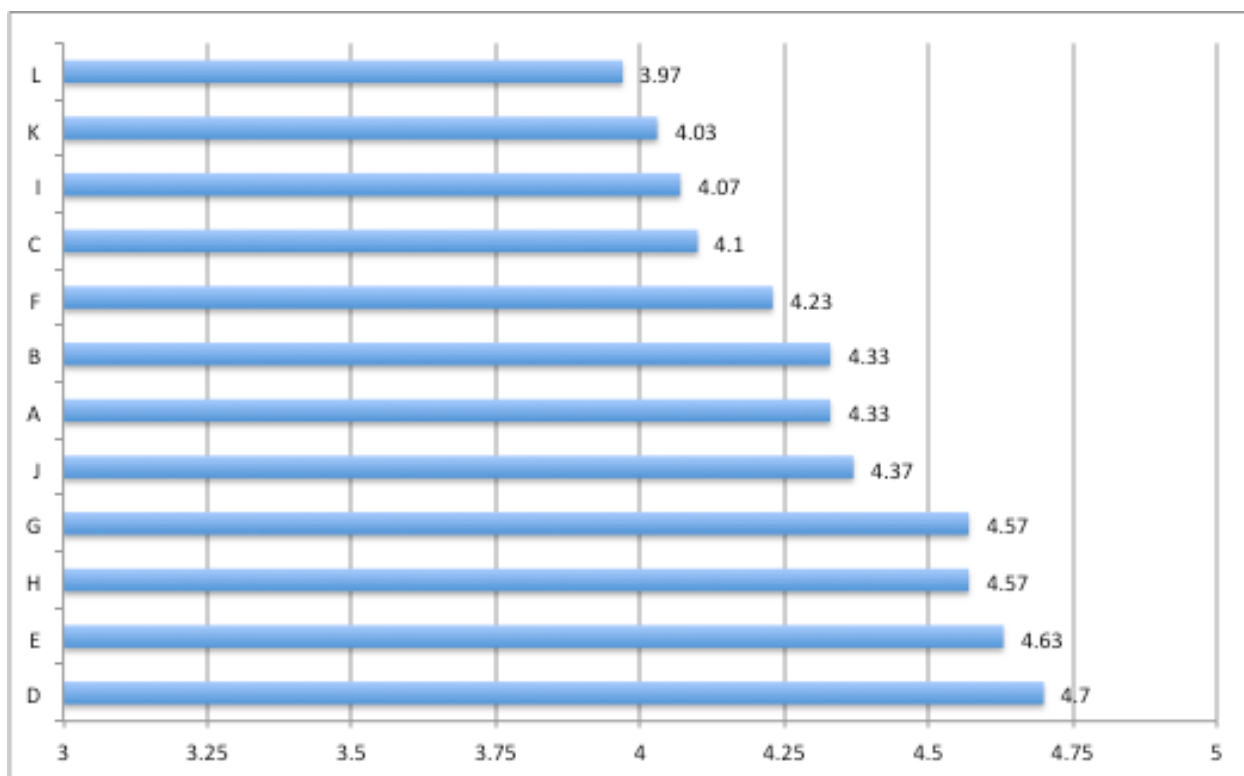
Scenario Writing Component

Thirty-one of the 34 respondents (91%) indicated that their Affiliate offers the Scenario Writing component of the program. Using the same 1-5 scale as for GIPS and CmPS, we asked about the impact of Scenario Wring on participating students' learning and growth. For this component, we used a slightly modified set of 11 questions, taking into account the nature of the Scenario Writing component. The table on the following page and the chart that follows it present the results from ADs for the Scenario Writing component. These results will be compared with responses from the other samples in the "Cross Sample Comparisons" section of this report

A. Fostering creative thinking (the ability to generate many, varied, and unusual options) (4.00)	0	1	8	11	10
B. Fostering critical thinking (the ability to sort and sift information or to focus one's thinking) (3.93)	1	0	8	12	9
C. Using a deliberate process for Creative Problem Solving methods and tools (3.33)	3	2	11	10	4
D. Developing leadership skills (2.77)	4	7	13	4	2
E. Developing research and inquiry skills (the ability to gather	0	2	11	11	6

information from many and varied sources) (3.70)					
F. Enhancing the skills of preparing and delivering materials and/or presentations that communicate ideas effectively (4.03)	1	1	5	12	11
G. Showing evidence of being able to apply FPS skills in other situations (3.30)	1	6	11	7	5
H. Developing skills in listening and following directions (3.17)	3	3	13	8	3
I. Developing the skills needed to manage time effectively (3.43)	0	3	15	8	4
J. Learning about complex issues that will shape the future (4.23)	0	0	3	17	10
K. Developing an active interest in the future (4.27)	0	0	2	18	10

The table on the following page summarizes the ADs' ratings on the items pertaining to goals and outcomes for the three program components.

Item	GIPS	CmPS	SW
Fostering creative thinking (the ability to generate many, varied, and unusual options)	4.29	4.33	4.00
Fostering critical thinking (the ability to sort and sift information or to focus one's thinking)	4.50	4.33	3.93
Using a deliberate process for Creative Problem Solving methods and tools	4.38	4.10	3.33
Developing teamwork and collaboration (working together, cooperating with each other)	4.59	4.70	---
Developing leadership skills	4.15	4.63	2.77
Developing research and inquiry skills (the ability to gather information from many and varied sources)	4.21	4.23	3.70
Enhancing the skills of preparing and delivering materials and/or presentations that communicate ideas effectively	4.09	4.57	4.03
Showing evidence that team members are able to apply FPS skills in other situations	3.91	4.57	3.30
Developing skills in listening and following directions	3.82	4.07	---
Developing the skills needed to manage time effectively	4.21	4.37	3.43
Learning about complex issues that will shape the future	4.68	4.03	4.23
Developing an active interest in the future	4.53	3.97	4.27

Although no item ranked in the top three for all three program components, four items were in the highest ranked three items on two program components. Of 34 total comparisons, 33 were rated greater than 3.00.

The next question asked, from the AD's perspective (in that role), to identify up to five main overall strengths of the FPSPI program. The responses fell into eight principal categories. The most frequently cited responses, which were given four times more frequently than those in any other category, involved having an explicit problem-solving process with lifelong value. Examples of specific responses in this category included:

• The six-step problem solving process -- it can be applied to any area of life!

• Teaching students a process they can use for the rest of their life

• Students can apply the skills gained through FPSP to other situations. For example, former FPSers who attended law school reported how the skills helped them through law school

• True differentiated curriculum that promotes creative and critical thinking and problem solving skills.

The other categories, in decreasing order of frequency, with sample responses were:

RESPONSIVE TO VARIED STUDENT STRENGTHS, ABILITIES, AND INTERESTS (9). Sample responses: we have components that play to the specific strengths of students and teachers, allowing the goals of FPS to be met in a variety of ways; challenges students of all ability levels to improve thinking skills; honors smart kids for taking a risk and stretching their thinking, instead of just going for the A.; [offers] kids a place to shine; through the offering of 3 components, it helps cater to pupils with different interests and style; FPSPI offers something for everyone: global issues focusing on the future, community problem solving for real issues happening right now, and scenario writing for students who like to write.

INTERNATIONAL CONTEXT (8). Sample responses: it is becoming increasingly 'international;' opportunity to communicate with participants, coaches etc. from all over the world.

PRIDE IN ACADEMIC VALUE AND POTENTIAL IMPACT OF PROGRAM (8). Sample responses: FPSPI has gotten big enough that we can make a difference in the world; we are "Education's best kept secret;" academic challenge like no other; recognition given for intellectual achievement (instead of just for sports)

FUTURE OUTLOOK AND ISSUES (8). Sample responses: creates sense of confidence and resilience for future in students; awareness of future issues affecting all of us; getting students to think in greater depth about issues that will certainly impact their future.

COMMITMENT, HARD WORK OF STAFF (7). Sample responses: the people who work for FPSPI are hard workers and dedicated to Dr. Torrance's vision for helping students learn to problem solve and to think about their impact on the future; quality, skilled staff; it has a staff that wants to provide a service to its participants; the dedication of the very small staff at the IO as well as the ADs and evaluators and many other volunteers.

TEAMWORK (7). Sample responses: having students work collaboratively to address these issues; team work demands assessment and recognition of others' strengths

NETWORKING AND COMMUNICATION (5). Sample responses: solid network of AD's; good communication with Affiliates.

A variety of other, less frequent responses included: fun at Affiliate Bowls & IC; having

2,000 students and adults together is very powerful and is a life-changing and memorable event for all who participate; competition; devoted participants; FPS alumni; the events are for the students; creative curriculum that is developed on an annual basis; inclusion of new strands, addition of ROCS this year; open-mindedness; opportunity to develop English language skills; it is affordable to the masses.

We also asked, from the AD's role perspective, "What are up to five main areas in which FPSPI needs improvement (as a program)?" Four respondents noted that they saw no areas in need of improvement. The other respondents identified a variety of areas for improvement. We identified seven clusters of responses, each of which had a minimum of three responses. These were:

FUNDING (16). Sample responses: sponsorship and funding. Both for overall program and for specific needs of Affiliates and students/teams; FPSPI needs corporate sponsorship both for economics and to gain additional recognition; we must seek and secure corporate sponsorships; we need more funding--either through grants or donations; method to give financial assistance to deserving teams to attend IC; international level scholarships in each component to promote continuation of students' educational plans or projects.

PUBLICITY AND PROMOTION (13). Sample responses: publicity, publicity, publicity -- maybe a famous person someday will have participated in FPSP and can join our campaign to show the world this powerful program; we need to change the idea that we are "education's best kept secret;" promotion of the program needs a LOT more effort and support; "I'm not sure we should promote it as a program for creative thinking - other programs do that better and FPSP goes way beyond that. Complex thinking - creative, critical, ethical is far deeper and we do that well."

TECHNOLOGY ADVANCES AND EFFECTIVE USE (9). Sample responses: work on making more of the program technologically attractive; more of an online and social networking presence; ability to do booklets online so we can reach the far-flung and rural schools; Youtube videos, more online materials; seems to be lots of unimportant email traffic.

TRAINING (5). Sample responses: standardized coach training...; more training for new coaches… ; provide more training opportunities for ADs; help for Affiliates who are just trying to start up!!

SIMPLE EXPLANATION OF POWER OF PROGRAM/PROCESS (4). Sample responses: the six-step process is not "showy" like, for example, Odyssey of the Mind (or whatever it is called now) -- it is hard to demonstrate to the public how incredibly powerful this program and process can be; a way to simplify an explanation of the program; it is not a program

that is easy to understand at first -- so, many would-be-coaches give up because it is hard work.

CONTINUE TO "INTERNATIONALIZE" (4). Sample responses: still need to internationalise many parts of Program (progress is there); needs more international exposure; needs to have the IC in other Affiliate countries other than USA.

EXPAND PARTICIPATION (3). Sample responses: We need to expand within the Affiliates; increase participation numbers.

Other responses, given by fewer than three respondents, included: evaluating student work in FPS -- whatever the component -- is hard work, so it is sometimes hard to recruit evaluators who aren't already sold on the importance of FPSP; additional consistency in evaluation, particularly at the IC level; finding five interesting topics and fuzzies in the same year; more publications targeted to specific needs; figuring out costs - for instance, why can't we just all order Affiliate bowl awards from IC instead of hunting around in each area?; I think we can use the value of the network more; less bulky registration process-paperwork; reestablish the excitement of being a part of a unique program; we must all work toward the common goal of the program. I feel most do, but a couple of ADs continually try to undermine the great things going on; more uniformity across Affiliate programs; have materials available a little sooner for the competitive rounds; equitability in fair preparation for IC (Foreign teams prepare for IC topic for several months while US students prepare for a few weeks.); we need a paid IC coordinator; the IO and BOT is constantly working on all aspects of the program.

One's attitudes and beliefs about a program may be revealed, often very directly, in what they say to others. With that in mind, we asked the AD's, "What would you say to someone who asks you about FPSPI as an opportunity for adults as Coaches or volunteers?" Seven responses were concise, positive words of encouragement to become involved (e.g., "Just do it!," "Come on down, you'll love it!!!!," or "Great place to give of your time.").

Eleven responses emphasized that participation in the program offers personal benefits

and value for the adult as well as for the students. These responses included, for example:

• Explore it - you will be amazed at what it can bring to you.

• Being an FPS coach was the most rewarding volunteer work I've ever done. I had the opportunity to work with terrific students that gave me a positive outlook for the future. I learned many interesting things, and was challenged myself to gain new skills.

• It is a challenging program that allows you to grow intellectually as you help students develop skills.

• You will learn as much about thinking as the students.

• Your excitement and knowledge will grow with the students.

One response emphasized the need for volunteers, and the fact that volunteers are not necessarily teachers ("We need you! Students need this program. You don't have to be a teacher to be a coach; parents are welcome.")

Twelve responses emphasized the value of seeing the growth and learning for students with whom volunteers work. Sample responses included:

• I still have students I coached 10 years ago coming back to thank me for involving them in FPS and telling me that they use the process all the time!

• If you want to be excited about what students can do as they think about complex issues happening now and in the future, you need FPSPI.

• If you like seeing students grow in problem solving skills and get excited about ideas, then FPSPI is the opportunity for you.

• It's a wonderful opportunity to learn that the future is in good hands. Watching the growth of young people through FPSP is mind-blowing!

• You'll never regret being involved when you see what it can do for your students (or

your own children).

Three responses were positive, but cautious about the effort and commitment that is required on the part of those who are involved (e.g., "Lots of fun working with kids, but a really tough first year with a big time commitment," or "It is a major commitment, not for everyone but very worthwhile to those who are willing to put in the hours").

We also asked the ADs, "Is there any question that you believe we should have asked you, but did not? If so, tell us your question and how you would have answered it, please." There were nine responses to this question. One was a complaint about the length of the survey, not a question that added insight into evaluation of the program. (As noted above, the decision to use a more comprehensive survey than a "quick and easy" set of questions was intentional, and was made with concurrence of our contact leaders.) Another was a question that expressed the concern that "typically ADs do not see students until the Bowl." The comment was correct, in that we did not make any assumption about when ADs would see students, but did assume that most ADs make deliberate efforts to be in contact with the activities and impact of the program on coaches and their students. The questioner indicated, "I answered these questions from years of seeing student growth." A third question posed a personal concern about remaining in the AD role; it is true that, although we did ask about ADs' satisfaction in the role, we did not ask about personal intentions for future role(s). One person commented, "Give us a Future Scene, and let us use the FPS process to work it out!" This was an interesting suggestion, but not really a survey question or response. One question said, "What do I think about Governing Council meetings?" which was addressed in a question already on the survey.

Three responses posed questions that may warrant future inquiry, but were not anticipated by the evaluation team and were not suggested by anyone during the survey

development, review, and piloting steps. These questions, and the response offered by the individual who posed it, are presented in the table below.

Question	Proposed Answer
Comparison between programs on international level for ADs outside the US	There are some key philosophical differences that must be acknowledged
Is yours a paid position or volunteer?	My position is one of two paid positions. I asked this question because I want to know how other Affiliate directors are found, paid and determined.
What is being done to develop the U.S. Affiliates that may be experiencing difficulty or have lapsed due to lack of support in their local area?	I would hope that FPSPI would make this a priority because these Affiliates are part of the founding country for the program. It is just as important to maintain a strong group of U. S. Affiliates as well as developing other international Affiliates.

Summary of Affiliate Directors' Results

In this section, we presented the survey responses from 34 FPSPI ADs. They expressed positive views of the program's goals and purposes, citing specific ways the program contributes to students and to adults who participate in it. From 50% to more than 90% of the ADs reported personal benefits of watching students grow creatively, growing creatively themselves as adults, and observing students grow in many other ways. The ADs expressed a positive level of satisfaction with the program, and identified nine general categories of the program's positives. They also identified 12 general categories in which they felt there is opportunity for the program to improve and become stronger. They evaluated each of the three principal components of the program (GIPS, CmPS, and Scenario Writing) positively in areas relating to the program's specific goals, and overall program strengths in eight broad categories. They also identified several general areas in which the overall program has room for improvement. They were strongly positive in what they would tell other adults about participating, although mindful of the work and commitment required.

Section IV: Results from Coaches

We received responses from 220 coaches. Of those responding, 27 (12%) were male and 193 (88%) were female. Only 16 (7%) reported having participated themselves in FPS as students, and 204 (93%) had not. In relation to their FPSPI experience, 36 (16%) were first year coaches, 74 (34%) reported one to four years of experience, and 110 (50%) reported having five years or more of experience.

We asked coaches, "What personal benefits (i.e., for you as an adult) do you receive through your involvement in Future Problem Solving?" Respondents were invited to check more than one response. In decreasing frequency, the coaches' responses were:

|		
Enjoy watching team members grow as creative individuals	189	86%
Learn to think about things more creatively	163	74%
Feel good about how the team pulled together to deal with difficulties that arose	152	69%
Discover that teams can do amazing things on their own.	150	68%
Apply my experiences here to other situations	123	56%
Learn about team dynamics	116	53%
Learn or improve organizational skills	102	47%
Gain an appreciation of my own ability as a creative person	93	42%
Learn about time management	89	41%

Respondents could also supply other, open-ended replies to this question. 39 (18%) did so. Seven (7) said that they learned about new topics. Four (4) cited improved critical and creative thinking skills. Four others mentioned being better able to solve problems. Three (3) discussed improvements to teaching. Two responding coaches gave responses in each of the following categories: consider future issues and topics; working with the community; develop communication skills; and, develop a deeper connection with students. Each of the following statements was listed by one coach: students from small schools are compared to a larger gene pool; opportunity to work with colleagues who share similar values about education; learn about

many topics through the research; challenge myself; watch students grow in confidence; learn to compete; to know that my work with Future Problem Solving students has made a lasting, positive effect in the lives of many people is very important to me; my son is on the team, so I benefit by giving him this experience; had greater initiative to implement outreaches; gain confidence as a coach, especially when my team consistently wins at district, regional, and state competitions; we didn't participate in FPS; help elementary students become aware of future/world issues; and, differentiate instruction for gifted learners in my classroom.

Experiences with Affiliate Bowls and International Conference

Next, we asked coaches to think about their experience in previous years with their Affiliate Bowl and with the International Conference (IC), and then to respond to several items regarding those events. The scale for this question ranged from 1-5, with the designations: (1) Poor-Major Change Needed; (2) Weak-Needs Improvement; (3) Okay; (4) Good; and, (5) Great. If they have not been to their Affiliate Bowl or to IC, they were asked to mark the "U" category. The table and chart below summarize the coaches' responses for this set of questions.

Item	Poor	Weak	Okay	Good	Great	U
A. Affiliate Bowl Rules to determine who qualifies (4.14)	1	7	22	66	61	63
B. Affiliate Bowl Registration (4.35)	0	4	12	64	75	65
C. Affiliate Bowl Social activities and events (3.68)	2	15	44	55	32	72
D. Affiliate Bowl Operation of the Competition (4.28)	1	2	18	66	69	64
E. International Conference Rules to determine who qualifies (4.22)	0	4	12	50	44	110
F. International Conference Registration (4.16)	0	3	16	39	37	125
G. International Conference Social activities and events (4.04)	0	6	15	39	31	129
H. International Conference Operation of the Competition (4.30)	1	4	9	30	47	129
I. International Conference Opening Ceremony (4.14)	1	4	16	30	40	129
J. International Conference Closing/Awards Ceremony (4.01)	2	4	19	31	34	130
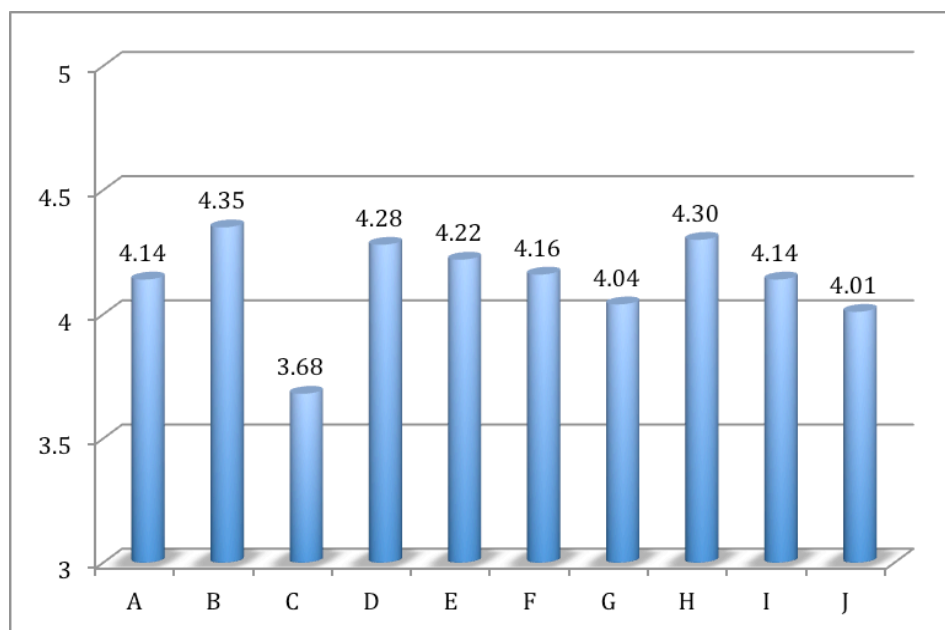
Technology

Coaches were asked to comment on FPS and Technology. They checked "U" if they were uncertain or unable to answer. They rated the nine items in the table below. We asked coaches to respond using a five point Likert scale (1=Poor-Major Change Needed, 2=Weak-Needs Improvement, 3= Okay, 4=Good. 5=Great). The table and chart below summarize the Coaches responses for this set of questions.

| Item	1	2	3	4	5	U
A. Social networking (e.g., Facebook) is now available (3.37)	8	9	36	35	14	118
B. Social networking (e.g., Facebook) if now available is of high quality (3.23)	5	7	45	23	7	133
C. Social networking (e.g., Facebook) is important (3.23)	10	24	62	48	16	60
D. On-line resources for teams are important (4.58)	0	3	7	66	138	6
E. Opportunities to do FPS on-line are important (3.92)	6	13	44	64	72	21
F. Web resources for research are important (4.63)	0	3	9	53	150	5
G. The international (FPSPI.org) website provides helpful information and resources. (3.89)	2	7	39	89	40	43
H. The international (FPSPI.org) website looks attractive. (3.73)	6	5	51	78	32	48
I. The international (FPSPI.org) website is easy to navigate and find what I need. (3.72)	4	12	46	81	29	48
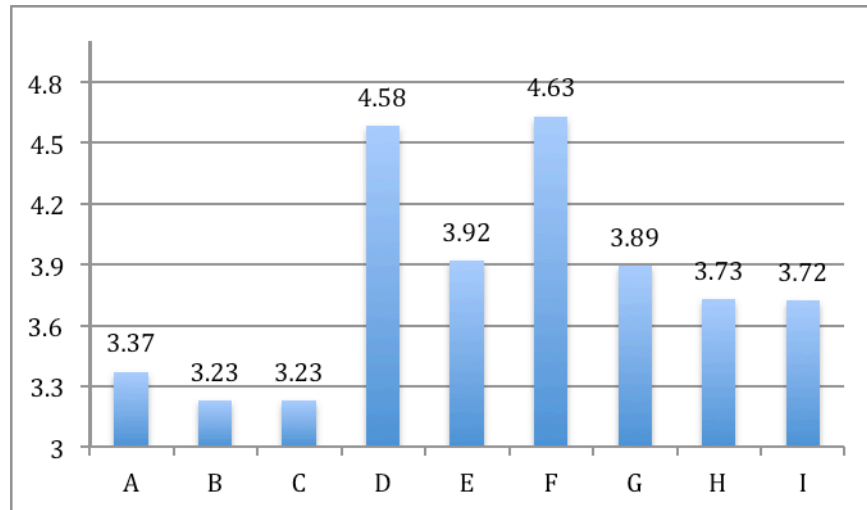
Overall Program Responses

Coaches were asked to think about the entire FSPI program, from their perspective as a coach and comment on the program's strength as well as areas that were in need of improvement. They responded to the seven items in the table below using the same five point Likert scale (1=Poor-Major Change Needed, 2=Weak-Needs Improvement, 3= Okay, 4=Good. 5=Great) as in the item above. The table and chart below summarize the coaches' responses for this set of questions.

Item	1	2	3	4	5	U
A. Goals of FPSPI are clear and easy to understand (4.18)	3	4	27	96	81	9
B. Program materials provided by my Affiliate are helpful to me as a coach. (4.16)	2	10	25	91	85	7
C. Program materials provided by my Affiliate are helpful to my teams. (4.14)	2	8	33	85	84	8
D. FPSPI rules are fair and easy to understand. (4.06)	1	15	30	89	76	9
E. FPSPI provides program materials that are helpful to me. (4.03)	2	14	34	82	75	13
F. FPSPI provides program materials that are helpful to my team. (4.02)	2	14	33	86	71	14
G. The cost of participating in FPSPI (3.42)	9	24	70	64	31	22
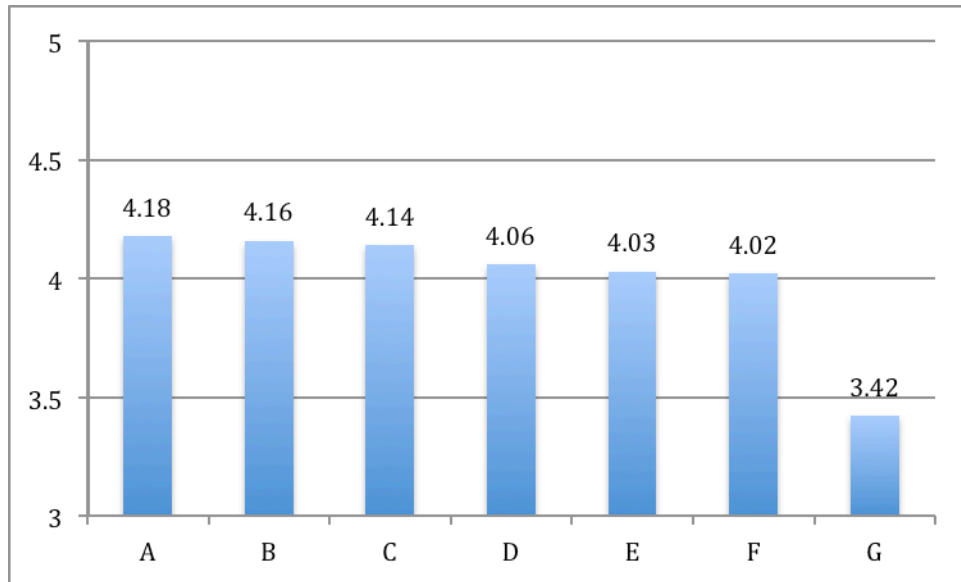
The seven questions in the table below were associated with an item asking coaches to comment on FPSPI problems from their perspectives as a coach. They responded to these items with the same 5-point Likert scale used in the items above. The table and chart below summarize the coaches' responses for this set of questions.

Item	1	2	3	4	5	U
A. Practice problems are interesting. (4.09)	2	6	32	96	68	15
B. Practice problems are challenging. (4.22)	1	2	26	98	77	15
C. Practice problems require a reasonable amount of effort and time. (4.21)	2	2	23	102	75	15
D. Practice problems evaluation feedback is beneficial. (4.34)	3	4	18	70	102	22
E. The Qualifying Problem is interesting. (4.21)	1	6	23	90	81	18
F. The Qualifying Problem is challenging. (4.33)	1	3	18	86	93	18
G. The Qualifying Problem evaluation feedback is beneficial. (4.38)	2	5	17	58	103	33
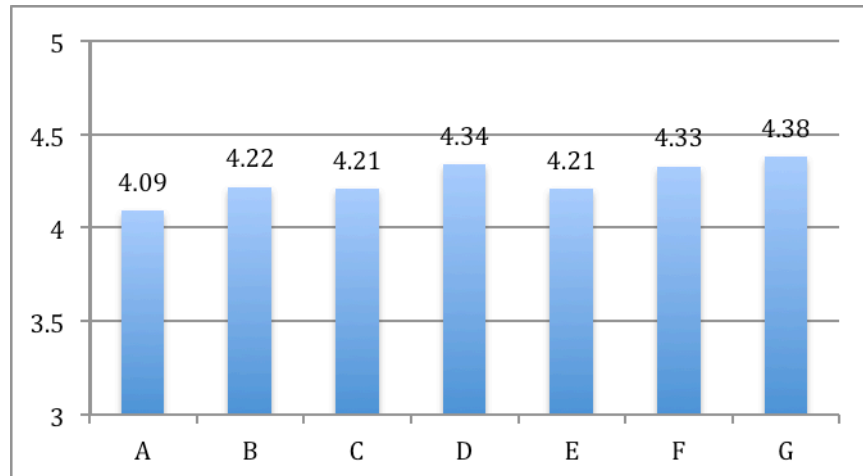
The Best Things About Being a Coach

In an open-ended question, coaches were asked: "What are up to 5 of the best things about being an FPSPI coach?" Of the 220 participating coaches 170 responded to this item. The responses clustered into twenty-five general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

WATCHING, SEEING, LISTENING (89). Sample responses: Observing students grow; seeing students learn or do well; watching them collaborate; listening to students brainstorm.

HELPING, TEACHING COACHING, SHARING, WORKING WITH STUDENTS (65). Sample responses: helping students realize their ability; teaching my elementary students the process; working with the youth; working with exceptional students; exposing students to various topics; guiding students; sharing the problem solving process with them; nurture risk-taking; coaching teams to work together.

TEAMWORK, COLLABORATION (63). Sample responses: working closely with a small group; seeing students grow into a team; teamwork; collaboration; interaction; group dynamics; manage themselves as a group; grow together; develop team building skills.

GROWTH, GREW (61). Sample responses: improving writing skills, developing skills, kids grow as creative thinkers, to grow with the children, growth in young kids' ability to think.

PROBLEM SOLVING, SIX STEP PROCESS, CPS (52). Sample responses: lifelong long process; the steps used to develop the process; learning strategies to develop solutions; abilities to do the six steps; think outside the box; I can say "Problem Solve"

and students know what I mean; the FPS process gives me a way to teach a problem solving process.

TOPICS, SCENES, ISSUES (49). Sample responses: problems that are important to the future; interesting topics; variation of the topics; discussions that come from the topics; reading the future scenes; keeping up-to-date on global issues; topics are relevant.

GREAT STUDENTS (47). Sample responses: bright students; students who value learning; dedicated students; interested kids; talented students; the creativity of students.

LIFE SKILLS FOR STUDENTS (45). Sample responses: writing; communication; thinking; strategies; time management; organization; problem solving.

STUDENTS LEARN (41). Sample responses: students learn about global issues; students learn about important topics; students develop their skills; kids learn and succeed.

I LEARN (40). Sample responses: learning personally how to be more creative; learning about the topics myself; my own growing knowledge because of the programme.

CREATIVE (36). Sample responses: creativity; creative thinking; outside the box; thinking more creatively; creative ideas; develop creativity; creative potential.

RELATIONSHIPS (33). Sample response: I get to share with students; I like working right along with the kids; team relationships; the team dynamic; interactions; few discipline problems; discussions; getting to know students; they get to work together.

CRITICAL THINKING (31). Sample responses: growth in thinking skills; strong framework for thinking; introduction to higher level thinking skills.

MOTIVATING, EXCITING, FUN (25). Sample responses: students get excited; motivating to me; motivated students; the kids feel stimulated; kids motivated to solve the problem; the excitement of working to present; being silly & goofy during our meetings; many are passionate about it; getting kids fired up; higher-level thinking that is fun.

CHALLENGE (24). Sample responses: I am challenged; I challenge norms and mores; challenge of topics; challenging students; students tell me it is tough but worth it; kids feel challenged; offering challenging activities for students; it is great to do something different and challenging.

OPPORTUNITY (17). Sample responses: opportunity for students to "do something"; getting opportunities to use creativity; opportunities to learn.

RESEARCH (15). Sample responses: The research required in the name of competition; Research is fun.

OTHER ADULTS (14). Sample responses: collegiality with other coaches; networking with other coaches; working with great adults.

FUTURE (14). Sample responses: understanding the future; future problems; futuristic topics; thinking about the future; showing students that they can make a difference now and in the future.

ORGANIZATION, PROGRAM (12). Sample responses: awesome program; most practical of all academic events; the program pushes kids; strong support from FPSPI organization; it is unique; at this point I am not very happy with the program.

IC, STATE BOWL (10). Sample responses: experience national finals; Affiliate bowls; travel opportunities for students.

COMPETITION (9). Sample responses: teams become excited about the competition; I like the competition.

PRIDE, CONFIDENCE (7). Sample response: feeling proud; school pride; the confidence students gain.

SKILLS FOR COACHES (7) Sample response; developing my own skills as a coach; improving my program with FPS.

COMMUNITY INVOLVEMENT, SERVICE (6). Sample response: students impact the community in a positive way.

Other less frequent or individual responses included: receiving feedback; student leadership; enrichment; parent support; evaluating work; coach's pride; students make connections between FPS and AP courses; instilling good sportsmanship; program on student resumes will open doors; ties into standards; not currently coaching; not yet sure.

Challenges of Coaching

Along the same line, coaches were asked: " What are up to 5 of the greatest challenges about being an FPSPI coach?" One hundred seventy coaches responded to this item. The responses clustered into seventeen general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

TIME, SCHEDULE (97). Sample responses: finding time to meet or practice; must meet beyond the school's schedule; personal time; coaching is time consuming; scheduling to accommodate competing student activities; the pressure to meet deadlines in time.

PROBLEMS PREPARING THE STUDENTS (56). Sample responses: nature of topics; getting information; program lacks consistency; selecting ideas; getting kids to change the "one right answer" mindset, feeling of not doing enough; sticking to limits and demands of process; filling time after practice problem is completed; getting kids to think futuristically; getting kids to do independent research; writing and/or getting future scenes ready for practice.

FUNDING, FUND-RAISING (45). Sample responses: raising money, lack of funds and resources, materials are expensive, Title I schools should receive help, travel to conferences and Bowls is expensive

TRAINING, TEACHING, EXPLAINING FPSPI PROCEDURES TO TEAM (43). Sample responses: training new team members; teaching the process; the need for repetition; teaching writing and research skills; teaching time management skills.

BEING PREPARED, KEEPING CURRENT (34). Sample responses: understanding changes; vocabulary; challenges; information; rules; self-training.

MOTIVATING, ENCOURAGING (27). Sample responses: motivating students to do what is needed; to stay with the program; to do the work; to be creative; to stay on task; keeping it "fun."

FEEDBACK, EVALUATION, SCORING (25). Sample responses: feedback is often delayed; biased; subjective; inconsistent; the criteria are unclear; difficult to do in practice; difficult to review with team; navigating and understanding new rubrics.

COACH'S TRAINING (23). Sample responses: training is deficient; I don't know the job; I am not ready.

MEETING STUDENT NEEDS (23). Sample responses: counseling them; helping their self-esteem; meeting their individual learning needs and differences; healing hurt feelings.

MANAGING STUDENT INTERACTIONS (22). (Sample responses: alpha personalities in control; managing students; encouraging diverse thinking without pure silliness; helping students who do not work well with others; kid wrangling.

CHOOSING TEAMS, RECRUITING (19). Sample responses: retaining team members; assigning students to teams; letting students know it's not just for "smart" kids; recruiting new members at the beginning of the year.

LACK OF SUPPORT (17). Sample responses: administrative support; school support; staff support.

MATERIALS, RESOURCES (16). Sample responses: topics from FPS difficult and/or inappropriate at junior level; limited in helpfulness; complex; too much; hard to organize.

LACK OF FPS SUPPORT (11). Support responses: organizational confusion; lack of direction; maintaining the integrity of the program; lack of technology; lack of program consistency; lack of thoughtfulness towards coaches.

PARENTS (10). Sample responses: working with parents; lack of parent support; parent lack of understanding; selling program to parents and others.

RECURITING OTHER ADULTS (7) Sample responses: finding coaches to assist; trying to get other adults involved.

PROGRAM LIMITED (6): Sample responses: too few students can be included; wish all could go.

Other less frequent or individual responses included: not getting too involved; feeling isolated and disconnected; getting through the storm of reform; organizing events; sustainability of the project; not yet sure; not currently coaching.

Coaches' Satisfaction

The coaches were next asked: "To what extent did your participation as an FPSPI coach this year meet your expectations?" All 220 coaches responded to this item. They responded as followed: Failed - 3 (1%); Fell short - 31 (14%); Met - 166 (75%); Exceeded - 20 (9%). We also asked: "What is your overall level of satisfaction with the FPSPI program?" The responses to this item were: Low - 2 (1%); Limited - 15 (7%); Moderate - 82 (37%); High - 121 (55%).

Similarly we asked the coaches: "What would you say to someone who asks you about the FPS program as an opportunity to be a coach or adult volunteer?" Of the 220 participating coaches 173 (78.6%) responded to this item. The responses clustered into twelve general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

PERSONALLY REWARDING, WORTHWHILE (42). Sample responses: connect with students on a high level; work with children who want to learn; fulfilling; satisfying; great experience.

DO IT (40). Sample responses: go for it; recommend it.

WONDERFUL OPPORTUNITY FOR PERSONAL GROWTH AND LEARNING (34). Sample responses: you'll learn and grow; sharpen problem solving skills; network with the like minded; improve as a teacher; learn the process.

CHALLENGING BUT REWARDING (28). Sample responses: It may seem difficult at first but it is well worth the effort; challenging but a wonderful experience; It takes a while to catch on and feel comfortable with all the FPS processes but it is well worth the effort.

COSTS IN TIME, RESOURCES, STRESS (26). Sample responses: preparation and planning; its work; its confusing; do it if you have time.

IMPACT ON STUDENT LEARNING AND GROWTH (23). Sample responses: kids learn important skills; think beyond national standards; kids become aware of real problems; helps them meet state standards; they continue to learn; gets students to think creatively; helps them grow to be independent learners.

INTERESTING, FUN, GREAT EXPERIENCE (23). Sample responses: educational; mind boggling; addictive; eye opening.

BE PERSISTENT, DETERMINED (17). Sample responses: a long term commitment; attend practices and state bowl to see end results; each year it gets easier; get mentored; appreciate the demands up front; it takes years to be proficient; after the 1st year its great.

SEE WHAT KIDS CAN ACCOMPLISH (14). Sample responses: watch what they can do; can have a positive impact; great to facilitate learning; see kids grow; important for kids.

PROGRAM HAS CHALLENGES (11). Sample responses: training is rushed; training is limited to once a year; scheduling in school is difficult; must learn by experience; the amount of material makes it hard to find the essence; process is not easy; make sure you have school support; not a lot of support available.

GET TRAINED (9). Sample responses: it is difficult; complicated; understand the rules; evaluator training develops strong coaching.

A GREAT PROGRAM (7). Sample responses: wonderful; singularly important; great experience for kids.

Other less frequent or individual responses included: we need you; please help; lot's of opportunities to help; there is help; I would direct them to AD or state office; low SES schools would love to learn too but have such a steep learning curve that the cost is prohibitive; I am a volunteer and the perfect person to talk to about that; recommend it for at home parents or enrichment teachers; take out the Tylenol; no one WOULD ask me because no one else has a desire to coach or volunteer. I have to pull arms and split my meager stipend to get help with evaluating.

Global Issues Problem Solving (GIPS) Component

Of the 220 participating coaches, 117 reported having coaching responsibilities during

the year that included the Global Issues Problem Solving (GIPS) Component of FPSPI.

Those with GIPS participants reported their coaching responsibilities for GIPS Teams for

the current year as follows: 55 coaches reported having responsibilities for Junior level GIPS

teams (average number of teams= 4, range from 1-22). At the Middle level, 65 coaches reported

2.9 teams on average (range from 1 to 9), and at the Senior level, 33 coaches reported 3.1 teams

on average (range from 1 to 16). For "individuals," note that some may have interpreted this as

"the number of individual [students] with whom I am working this year," rather than as the

number of students participating in the Individual GIPS option. Their reported numbers of

participants were: Juniors, 19 coaches reported an average of 9.1 students, ranging from 1-44;

Middle, 21 coaches reported an average of 4.3 students (ranging from 1-29); Seniors, 25 coaches

reported an average of 4.2 students (ranging from 1-28). When asked about the experience of

their participating students, 112 coaches responded. A majority (59, or 52.7%) indicated "a mix

of new and experienced participants, while 35 (31.2%) reported "mostly new participants," and

18 (16.1%) reported "mostly experienced participants."

Coaches who had teams involved in the Global Issues Problem Solving Component were

asked to rate 12 items based on their experience during the year. Instructions for this item

continued: "Think about the impact on your students' learning and growth, not only about

competitive success. While the results may vary for each students, or each team, please base your

rating on your overall impressions of your students' accomplishment of these outcomes." The

coaches responded using the following scale: Little or No Impact (1); Limited Impact (2);

Moderate Impact (3); High Impact (4) Exceptional Impact (5)." The table on the following page

chart presents the responses of the 114 coaches. The chart after the table summarizes their

average response to the items.

Question	1	2	3	4	5
A. Fostering creative thinking (the ability to generate many, varied, and unusual options) (4.12)	0	2	18	58	36
B. Fostering critical thinking (the ability to sort and sift information, or to focus one's thinking) (4.23)	0	1	11	63	39
C. Using a deliberate process for Creative Problem Solving methods and tools (4.24)	0	1	15	53	44
D. Developing teamwork and collaboration, working together and cooperating with each other (4.34)	0	1	9	54	49
E. Developing leadership skills (3.94)	0	4	30	48	31
F. Developing research and inquiry skills (the ability to gather information from many and varied sources) (3.86)	1	8	30	42	33
G. Enhancing the skills of preparing and delivering materials and/or presentations that communicate ideas effectively (3.85)	2	6	29	46	30
H. Showing evidence that team members are able to apply FPS skills in other situations (3.70)	1	13	31	39	27
I. Developing skills in listening and following directions (3.68)	2	8	40	38	26
J. Developing the skills needed to manage time effectively (3.94)	1	4	31	43	35
K. Learning about complex issues that will shape the future (4.39)	1	0	9	47	57
L. Developing an active interest in the future (4.20)	0	2	18	48	45
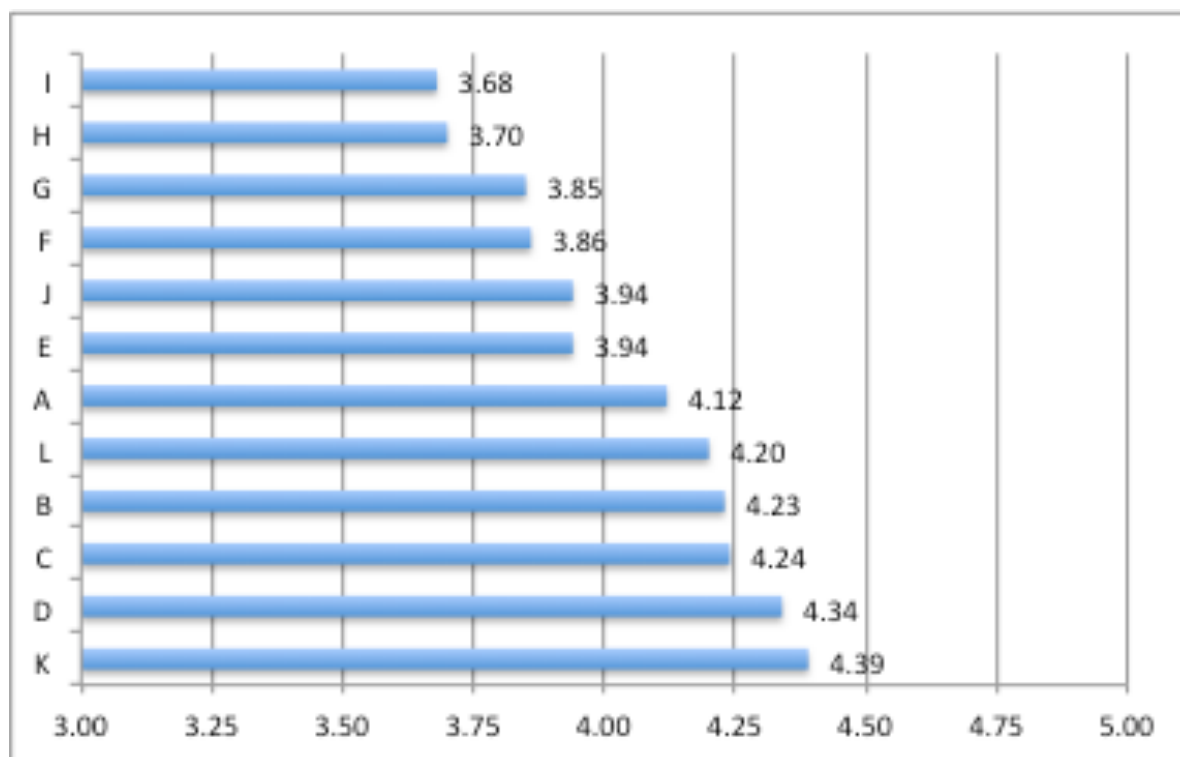
We then asked the GIPS coaches the following open-ended question: "What are up to five of the major strengths of GIPS?" Eighty-two participating coaches responded to this item. The responses clustered into fourteen general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

TEAMWORK, COLLABOATION (41). Sample responses: students working together; each team member has a role; they learn to recognize the strengths and weakness in themselves and their team mates; social interaction; building team cooperation; cooperative learning.

TOPICS, ISSUES, SCENARIOS (38). Sample responses: global issues; relevant; today's world issues; raising awareness; students deal with real problem; critical problems addressed; real world problems; structure; format.

DEVELOPS CREATIVE THINKING (32). Sample responses: students grow creatively; divergent thinking; encourages and rewards creativity; develops varied responses; flexibility; openness; think beyond the obvious; changing perspective.

THE PROCESS, SIX STEPS, CPS (29). Sample responses: brainstorming is fun; taking a problem through the process.

DEVELOPS CRITICAL THINKING (21). Sample responses: analysis; evaluation; prioritizing issues; highlights use of evidence.

LIFE SKILLS (21). Sample responses: work under pressure; ideas and actions must be based on fact; learn to think on their feet; develop the ability to practice; leadership.

COMMUNICATION SKILLS (19). Sample responses: written; verbal.

BROADENS KNOWLEDGE BASE (16). Sample responses: scenarios cross over to course content; kids explore beyond their own environment; working outside the norm; learning what is going on in the world; educational enrichment.

DEVELOPS RESEARCH SKILLS (15). Sample responses: students research heavily to be prepared; research opportunities.

EMPHAISIS ON THE FUTURE (13). Sample responses: futuristic thinking; learning about future topics

VALIDATES STUDENTS (9). Sample responses: provides sense of accomplishment; values their individual strengths; builds confidence; all opinions are welcomed.

DEVELOPS TIME MANAGEMENT SKILLS (9) Sample responses: work under time constraints; work under the pressure of deadlines.

DEVELOPS HIGHER LEVEL THINKING (7) Sample response: expanding thought processes.

INTELLECTUALLY CHALLENGING (6). Sample response: engaging.

Other less frequent or individual responses included: students must take responsibility; program develops reading skills; learn with the kids; the materials; provides a safe environment for competition; support from the organization; students have fun at meetings; the issues and competition generate interest; managing impulsivity; action plan; fills a need for high quality curriculum.

We also asked the GIPS coaches to suggest up to 5 principal areas that might be improved about GIPS, Sixty-four of the participating coaches responded to this item. Those responses clustered into eight general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

TOPICS, ISSUES (18). Sample responses: future scenes could be improved; quality of scenarios is uneven from year to year; wording; fewer acronyms; can be demanding at times; should be more in line with research and preparation; vocabulary was juvenile and articles dated; some future scenes lend themselves to creativity some are very narrow; put more future in the future scenes; different future scenes for each level; stop having separate junior/middle/senior scenarios- it is confusing.

EVALUATION AND FEEDBACK (9). Sample responses: need delivery of more repaid feedback; feedback is inconsistent; some feedback is more helpful than other; quicker turn around; check evaluators for competence and clarity; include examples for student improvement; rate more on the ideas than the sentence structure; the grading stops good teams from getting through on really technical matters; grading can be subjective; better evaluator training to allow for turnover; include presentation of action plan in overall score.

ORGANIZATIONAL SUPPORT (9) Sample response: focus is too often on adult needs rather then student needs; more website suggestions that are valid; more free materials; resources more easily available; more publications for the variety of needs; improve research suggestion list; more support for new coaches; make sure materials sent to competitions is current.

COSTS (7). Sample responses: fees are high; materials should come with entry fee; cost to participate; it's really too expensive to enroll teams; develop corporate sponsors to allow winning teams to travel to competitions.

SCORING AND REQUIREMENTS (7). Sample responses: sometimes charge is not clear or actionable; more flexibility in guidelines; more standardization among Affiliates; too much emphasis on time limits and time management.

TECHNOLOGY (7). Sample responses: upload student work so evaluation can be delivered rapidly; use online participation; put coaches' training online; move beyond written paper format; create a network of solutions to share with world leaders and professionals; network connections that allow IC participants to communicate before and after the event; develop a website devoted to each topic including links to research and experts.

COACHES' TRAINING (6). Sample responses: I wish I had done non-competitive option my first year; could use more mentoring as a new team; better training for first year people; we shouldn't need to by extra materials to get a new couch going; training needs to be more through.

JUNIOR LEVEL CONCERNS (6). Sample responses: some Fuzzies are hard for juniors to understand; rate with level in mind; topics and scenarios can be over their heads; they need completely different scenes; increase the number of junior teams at IC; topics may be too mature.

Other less frequent or individual responses included: the way teams are selected for IC; the number of teams allowed should be expanded; more time between levels of competition and booklets to reduce stress; don't rely on coaches for evaluation at Affiliate; need coaches who read and follow directions and who don't impose "special" conditions on others; more uniformity in coaches' scoring; deadline timing; more time is needed in the schedule; increase the number of specific current topics for practice so students can apply their research; I'd like to see more communication with education departments, this is so important for improving education but not enough educational leaders know about the program; there is no opportunity to celebrate the strengths of the slow, deliberate thinker; the name.

Community Problem Solving (CmPS) Component

A smaller number of coaches (34) reported having responsibilities during the year that included working with Community Problem Solving (CmPS) teams or individual participants. They reported having responsibility for 17 Junior teams, 19 Middle teams, and 13 Senior teams. Their report of Individual participants may be subject to the same possible misunderstanding noted above for GIPS coaches; the numbers reported were 18 Junior, 42 Middle, and 19 Senior.

Coaches who had teams or individuals involved in the Community Problem Solving Component (CmPS) were asked to rate 12 items based on their experience during the year. Instructions on this item continued: "Think about the impact on your students' learning and growth, not only about competitive success. While the results may vary for each students, or each team, please base your rating on your overall impressions of your students' accomplishment of these outcomes". Thirty-three coaches responded to this item using the following scale: Little or No Impact (1); Limited Impact (2); Moderate Impact (3); High Impact (4) Exceptional Impact

(5)." The table below gives the tabulation of the responses of the 33 coaches. The chart that

follows the table summarizes their average response to the items.

Question	1	2	3	4	5
A. Fostering creative thinking (the ability to generate many, varied, and unusual options) (4.00)	0	0	9	15	9
B. Fostering critical thinking (the ability to sort and sift information, or to focus one's thinking) (4.15)	0	0	5	18	10
C Using a deliberate process for Creative Problem Solving methods and tools (3.82)	1	2	8	13	9
D. Developing teamwork and collaboration, working together and cooperating with each other (4.44)	0	0	2	14	16
E. Developing leadership skills (4.45)	0	0	2	14	17
F. Developing research and inquiry skills (the ability to gather information from many and varied sources) (4.00)	0	1	8	14	10
G. Enhancing the skills of preparing and delivering materials and/or presentations that communicate ideas effectively (4.39)	0	0	4	12	17
H. Showing evidence that team members are able to apply FPS skills in other situations (4.06)	0	0	9	13	11
I. Developing skills in listening and following directions (4.15)	0	0	6	16	11
J. Developing the skills needed to manage time effectively (4.18)	0	0	4	19	10
K. Learning about complex issues that will shape the future (4.27)	0	0	7	10	16
L. Developing an active interest in the future (4.27)	0	0	5	14	14
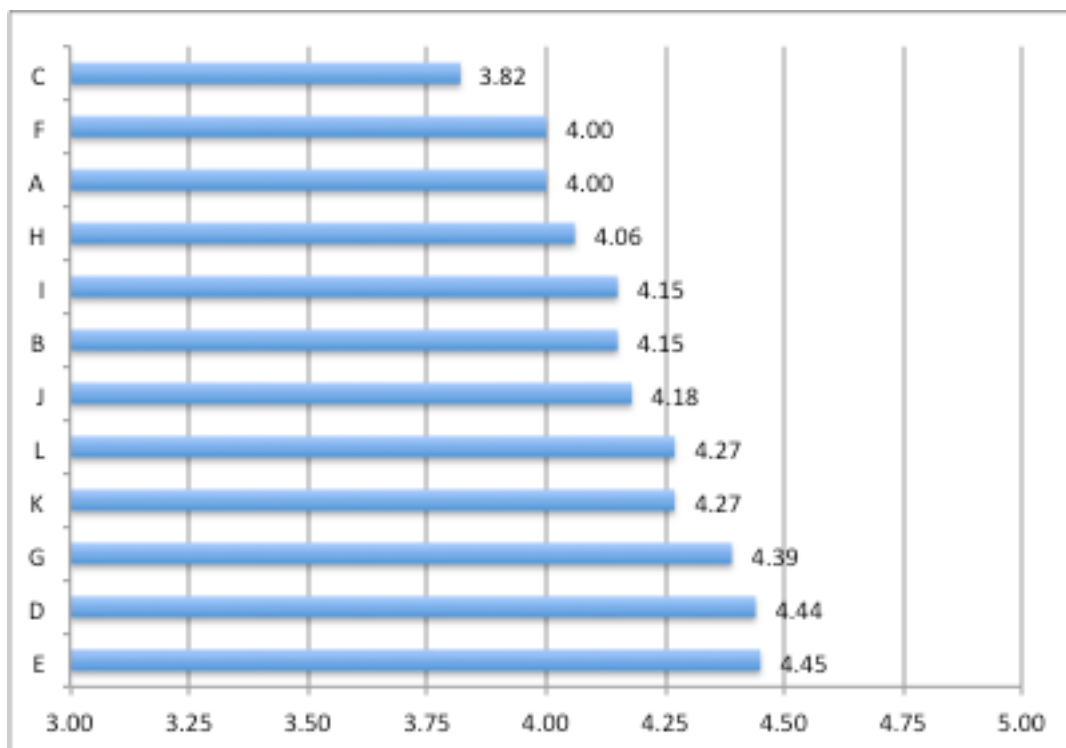
CmPS coaches were asked next to list on up to five major strengths of the CmPS component. Twenty-six participants responded to this item. Those responses clustered into six general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

STUDENT AFFECT (11). Sample responses: they can follow a passion; develop a sense of empathy; empowers them; develops resilience and determination; sense of accomplishment; builds trust and risk taking; responsibility motivates students; develops independence.

REAL WORLD PROCESS EXPERIENCE (11). Sample responses: real world thinking and application; challenging for the gifted; the whole process; sustainability of projects is encouraged; practicing problem solving in the real world is invaluable; clear structure.

SERVICE (10). Sample responses: students change the community; address real needs of a community; service to others.

LIFE SKILLS (9). Sample responses: communications; research skills; they learn leadership; organization; real life decision-making; students learn to work around roadblocks.

STUDENT GROWTH AND LEARNING (7). Sample responses: requires depth of study; sensitivity to current affairs; authentic learning; helps students focus on a problem; students not relying on a teacher.

TEAMWORK (7) Sample responses: Students working together; team building.

Other less frequent or individual responses included: students gain recognition; develops creative and critical thinking; evaluators at IC were very positive for seniors; I love CmPS and watching students grow; meeting those from other places who share your passion.

CmPS coaches were also asked to suggest " up to 5 areas that might be improved about CmPS." Twenty-one coaches responded to this item. Those responses clustered into six general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

EVALUATION, FEEDBACK (5) Sample responses: improve feedback and encouragement; fairness; criteria not spelled out; better feedback to make changes for next year; fresh IC judges; judges should visit sites where projects are placed; judges look at students like adults not kids.

MATERIALS (5). Sample responses: getting and understanding materials and procedures is difficult; update CmPS handbook; give more examples of past CmPS projects in local context; directions as to what information goes where is confusing, unclear, and redundant; instructions for writing final entry are confusing, break requirements into steps.

SCHEDULING (4). Sample responses: deadlines too short at state; due dates fall on breaks; not enough time between qualifying and IC.

COACHES' NEEDS (4). Sample responses: more resources given in training; directions for new coaches are US based and difficult to follow; more structure and help to new coaches; materials to teach strategies that we don't have to buy.

REPORTS (3). Sample responses: better incorporation of CPS process in report; limit the number of scrapbook pages; the report is repetitive.

PARTICIPATION (3). Sample responses: expand the number of teams that qualify for IC; more opportunities to advance.

Other less frequent or individual responses included: use technology to enhance current CmPS program and reduce emphasis on scrapbooks; presentation requirements too ridged; need to focus less on writing and more on what kids do; traveling large distances creates enormous difficulties with effective displays; change of venue.
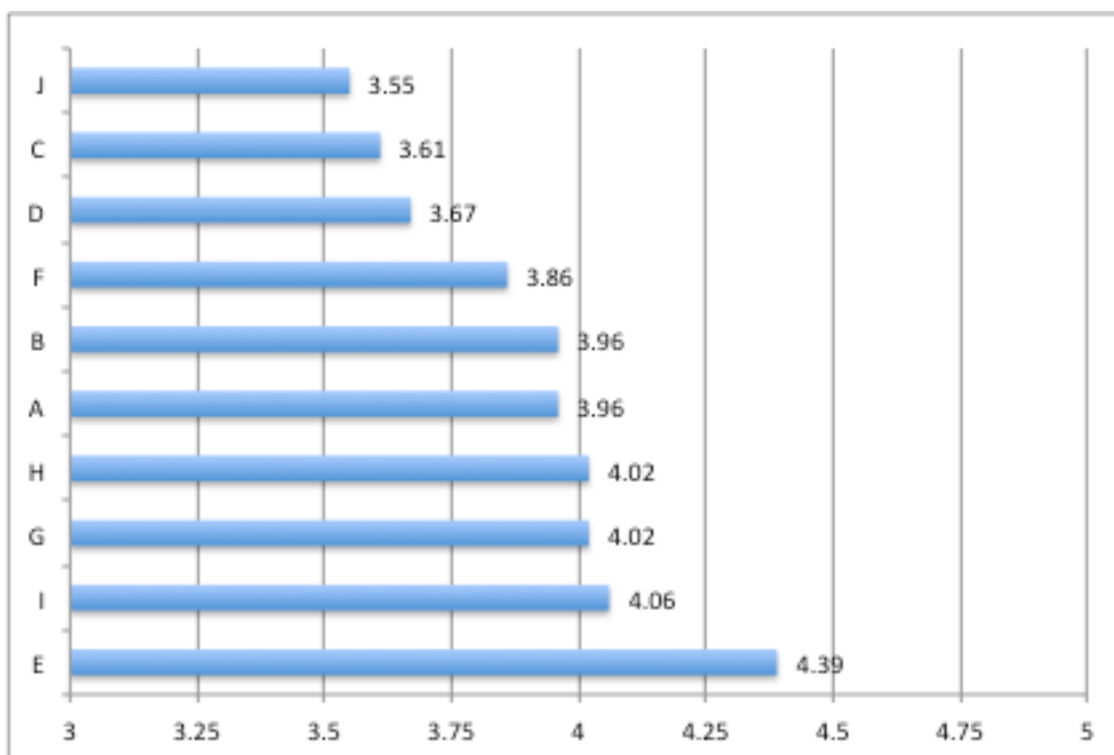
Scenario Writing (SW) Component

There were 51 coaches who reported that their coaching responsibilities involved working with students engaged in the Scenario Writing Component. The coaches reported working on Scenario Writing with varied numbers of students at each level. The average number of students at the Junior level was 8.0 (range from 1-45), at the Middle level, 10.4 (range 1-110), and at the Senior level, 4.4 *range 1-30).

Coaches who had students involved in the Scenario Writing Component were asked to rate 10 questions based on their experience during the year. Instructions on this item continued: "Think about the impact on your students' learning and growth." The coaches responded using

the following scale: Little or No Impact (1); Limited Impact (2); Moderate Impact (3); High

Impact (4) Exceptional Impact (5). The table below presents the coaches' responses to those 10

items. The chart on the following page summarizes their average response to the items.

Question	1	2	3	4	5
A. Fostering creative thinking (the ability to generate many, varied, and unusual options) (3.96)	1	0	13	23	14
B. Fostering critical thinking (the ability to sort and sift information, or to focus one's thinking) (3.96)	0	1	11	28	11
C. Using a deliberate process for Creative Problem Solving methods and tools (3.61)	2	4	15	21	9
D. Developing research and inquiry skills (ability to gather information from many and varied sources) (3.67)	1	7	10	23	10
E. Enhancing and expanding writing skills (4.39)	0	0	4	23	24
F. Developing the skills needed to manage time effectively (3.86)	1	4	9	22	13
G. Learning about complex issues that will shape the future (4.02)	1	2	8	24	16
H. Developing an active interest in the future (4.02)	0	3	7	27	14
I. Thinking and researching futuristically (4.06)	0	3	8	23	17
J. Showing evidence that they are able to apply FPS skills in other situations (3.55)	3	6	13	18	11

Those coaching the Scenario Writing Component were asked to list "up to five major strengths of Scenario Writing." Thirty-two coaches responded to this item. Those responses clustered into ten general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

> **DEVELOPS WRITING SKILLS (16).** Sample responses: editing; proof reading; creating believable characters and situations; practice persuasive writing; writing for a goal.

> **DEVELOPS CREATIVE THINKING (12).** Sample responses: students visualize a wide range of topics; promotes creativity; imaginative; develop creative thinking.

> **ENCOURAGES FUTURISTIC THINKING (10).** Sample responses: provides an outlet for science fiction writing; develop futuristic thinking.

> **VALIDATES STUDENTS (9).** Sample responses: provides writers an audience; individualism; gives creative writers a chance to shine; open to many styles.

> **OFFERS FPS STUDENT A CHANCE TO WORK ALONE (9).** Sample responses: independent contract work for talented students; allows individual students

FPS participation; fits busy G&T schedule; gives outlet to students who work best on their own.

TOPICS (7). Sample responses: focusing a topic to a particular area; projecting a topic into the future; allow students flexibility; real life situations.

THE PROCESS (7). Sample responses: application of FPS skills; adhering to the structure; works on the micro and macro levels; peer editing; 1500 words is appropriate; creative process.

FEEDBACK (7). Sample responses: offers positive way to improve; detailed evaluations; detailed rubrics and benchmarks.

LIFE SKILLS (6). Sample responses: seeing connections; organization; accepting peer criticism; persistence; self-criticism, time management.

BROADENS KNOWLEDGE BASE (6). Sample responses: expands vocabulary; effective interdisciplinary thinking; students become more autonomous; encourages students to try different genre; students must learn their topic.

Other less frequent or individual responses included: develops research skills; challenging; motivating; develops critical thinking; mentor relationship; fascinating to big picture thinkers; incentive to make it to state and national levels is motivating.

Coaches of students working in the Scenario Writing Component were also asked to suggest "up to 5 areas that might be improved about Scenario Writing." Twenty-seven coaches offered responses to this item. Those responses clustered into five general categories; these are presented below, in descending order of their frequency of occurrence among the respondents. For each cluster, we also present selected sample responses that reflect the main characteristics of the set.

EVALUATION AND FEEDBACK (11). Sample responses: more positive feedback; sketchy and shallow; speedy return; subjective; more training for evaluators; have people other than coaches evaluate; pleased there is double marking to reduce subjectivity.

SCHEDULE (11). Sample responses: the deadline is too early in the year for submission; time to fit activity into student schedule.

ORGANIZATIONAL SUPPORT (6). Sample responses: copies sent out of winning scenarios; less paperwork to prepare scenario; an easy guide to follow; more exposure of excellent scenarios to the media; it needs to be thought of as a valuable part of FPS instead of a step child.

STUDENT NEEDS (5). Sample responses: students would benefit from a few short scenarios early in the year with feedback before starting the final scenario; online resources; state level involvement for writers at bowls; more resources on skills of futuristic writing.

SCENARIOS (4). Sample responses: word limits on scenarios should be increased to 2000 or a range of word counts provided, more lively topics.

Other less frequent or individual responses included: coaches need a way to motivate students; more training; help to relate stories to topics; clarification of different types of on-site scenarios at IC; well done program; it is expensive to administer to a whole team of students.

The table below summarizes the coaches' responses for the items relating to goals and outcomes for the three program components; the items varied slightly among the components.

Item	GIPS	CmPS	SW
Fostering creative thinking (the ability to generate many, varied, and unusual options)	4.12	4.00	3.96
Fostering critical thinking (the ability to sort and sift information or to focus one's thinking)	4.23	4.15	3.96
Using a deliberate process for Creative Problem Solving methods and tools	4.24	3.82	3.61
Developing teamwork and collaboration (working together, cooperating with each other)	4.34	4.44	---
Developing leadership skills	3.94	4.45	---
Developing research and inquiry skills (the ability to gather information from many and varied sources)	3.86	4.00	3.67
Enhancing the skills of preparing and delivering materials and/or presentations that communicate ideas effectively	3.85	4.39	---
Showing evidence that team members are able to apply FPS skills in other situations	3.70	4.06	3.55
Developing skills in listening and following directions	3.68	4.15	---
Developing the skills needed to manage time effectively	3.94	4.18	3.86
Learning about complex issues that will shape the future	4.39	4.27	4.02
Developing an active interest in the future	4.20	4.27	4.02
Enhancing and expanding writing skills	---	---	4.39
Thinking and researching futuristically	---	---	4.06

Summary of Coaches' Results

A total of 220 coaches responded to this survey providing both quantitative and qualitative responses. As a group they seem to get great satisfaction from watching their students learn and grow creatively and academically. Coaches have high expectations for their students and faith in their potential. They also report benefitting personally. Overall, the coaches responding to this survey feel that the FPSPI program does what it purports to do, with the majority reporting that the program does a good or great job on the areas that were measured by this assessment. This is true across all three program components.

There were challenges reported, associated with coaching FPS. These challenges included the amount of time involved, problems connected with funding, and keeping students prepared and motivated. Coaches also offered suggestions to improve the program. Areas in which suggestions were made included the use of technology across several program areas, and the need for improved training, especially for new coaches.

Section V: Results from Students

We received 633 complete responses from students in 27 Affiliates. At the time at which they responded, their average age was 13.6 (SD= 1.9), ranging from ages 9 to 18; the median and mode were both 14. The respondents included 257 males (40.6%) and 374 females (59.1%); two students declined to state their gender. They reported that, counting the current year in which they responded (the 2010-11 program year), 248 (39%) were in their first year of participation; 320 (51%) indicated two to four years of participation, and 63 (10%) said they had participated for five years or longer (two students did not respond to this item).

Satisfaction With the Program

We asked the students, "How do you feel about being an FPS team member this year?" On a 1 (low) to 4 (high) scale, the average for this question was 3.34, and 90% of the students rated the program experience as "really good" or "okay. The following chart summarized the distribution of the students' responses:

Not very good–it was much poorer than I expected	21 (3%)
It was a little bit less than I expected	43 (7%)
It was okay	267 (42%)
It was really good	300 (48%)

Average is 3.34 (out of possible 4.00)

Specific Program Elements. We asked students to indicate their response to a number of statements regarding operational elements of the program, using a five-point scale (1= Poor; 2= Weak; 3= Okay; 4= Good; 5=Great, or "U" if they were unable to rate the item. The wording of the stem for these questions was, "Think about all the things you've done in FPS this year." For each item, we present the question, the average score, and the distribution of responses (number

and percentage). The chart below the table summarizes the average scores for each question.

Items	SD	D	N	A	SA	U
A. The goals of FPS are easy to understand. (Average = 3.99)	6	28	122	281	191	3
B. The FPS materials we received were helpful. (Average = 3.85)	18	41	134	250	175	13
C. The FPS rules are fair and easy to understand. (Average = 4.15)	13	31	83	223	278	3
D. Practice problems are interesting. (Average = 3.78)	27	48	150	190	193	23
E. Practice problems are challenging. (Average = 4.03)	8	18	126	252	202	25
F. Practice problems evaluator feedback is helpful. (Average = 4.04)	16	29	113	197	240	36
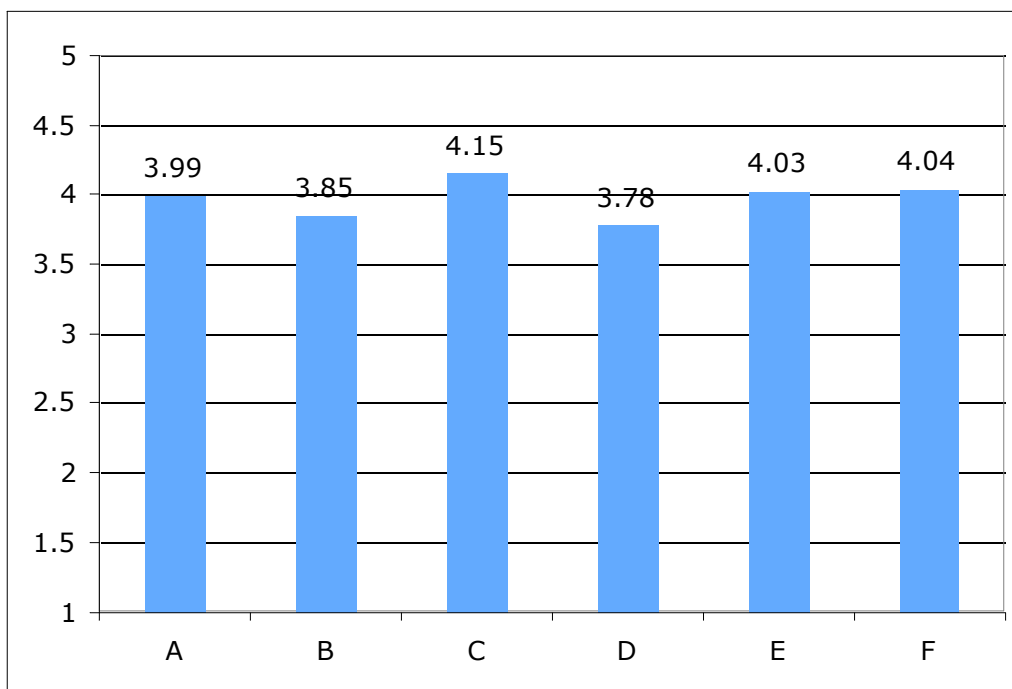
Technology. The next series of questions dealt with technology, the FPSPI website, and applications of technology in the program. When asked if they have visited the FPS website (www.fpspi.org), 235 (37%) replied "yes," and 395 (63%) said, "no." The first group of four questions in this set asked students to indicate the degree to which they agreed or disagreed with

several statements about technology and FPS (using the scale 1= Strongly disagree; 2= disagree; 3 = Neutral; 4= Agree; 5= Strongly agree, or marking "U" for any question they were unable to answer). For each item, we present the question, the average score, and the distribution of responses (number and percentage).

Items	SD	D	N	A	SA	U
A. The website (wwww.fpspi.org) has helpful information and resources. (Average = 3.85)	3	11	50	112	47	10
B. The website is attractive. (Average = 3.28)	8	38	93	60	29	6
C. The website is easy to use. (Average = 3.86)	2	13	58	94	59	8
D. I usually find what I need at the website. (Average = 3.66)	3	22	71	81	48	9

Facebook. To investigate the extent to which the respondents participate in "social networking," we asked two questions specifically about Facebook (since it is reportedly the world's largest social networking site for young people). Most of the respondents (N= 406, or 64%) responded that they do have a Facebook page. However, when we asked those who reported having a Facebook page whether they use it for FPS, only 47 (12%) said yes (and 88%, or 358, said that they do not). Further, when asked, "Would you like to use Facebook for FPS?" 175 (44%) said "yes," and 227 (56%) said "no."

On-line FPS. Next, we asked, "If you could do FPS on-line, such as on the web, would you?" Approximately 60% of the students indicated that they "probably" or "definitely" would do it; the response distribution was:

Definitely not do it   79 (12.5%)

Probably not do it   175 (28%)

Probably do it.   279 (44%)

Definitely do it.   98 (15.5%)

When asked, "Do you do any research on-line about FPS topics?" 453 students (72%) responded *yes*, and 178 (28%) responded *no*. The sites that the students reported using for research relating to FPS were:

116 = At fpspi.org

306 = At other sites suggested by coach, parents, or teachers

262 = At sites other team members find (or we find together)

329 = At other sites I find on my own

Global Issues Problem Solving (GIPS) Component

We asked whether students participated in Global Issues Problem Solving (GIPS) this year. The responses were: Yes = 242, No = 389. Of those who said yes, 220 reported working as part of a team, and 18 as Individuals. In response to level, 80 indicated Junior, 104 Middle, and 55 Senior.

Next, we asked 12 questions relating to the goals and purposes of the program drawn from FPSPI's purpose statements, on page 2 (above), and from additional goals that we considered as potentially relevant for students. For each question, students responded using a 1-5 scale (1= Hasn't helped me at all; 2= Helped me just a little; 3= Helped me—"Okay"; 4= Helped me quite a bit; 5= Really a great help to me). The directions indicated, "The more helpful GIPS has been for you, the higher the score you should choose." The students' responses are summarized in the table on the following page, and the accompanying chart.

Items	1	2	3	4	5
A. Thinking of many different and unusual ideas (Average =3.99)	2	9	51	105	73
B. Deciding on the best solution to a problem (Average = 3.87)	5	10	65	91	69
C. Using a process to solve a problem (3.86)	10	14	62	66	87
D. Working together and cooperating with others (4.13)	6	16	32	70	114
E. Helping become a better leader (3.90)	10	20	43	77	90
F. Finding information in many different places (3.71)	8	22	62	81	62
G. Preparing information and reporting ideas in a clear way (3.81)	3	19	66	84	68
H. Using skills from FPS in other situations (at home, in school, or in other ways) (3.48)	21	36	57	60	66
I. Learning to listen better and follow directions (3.54)	19	22	65	76	57
J. Learning how to make the best use of my time (3.74)	13	19	55	82	69
K. Learning about topics that will have important effects on the future. (4.14)	7	11	36	73	112
L. Feeling that I can make a difference in shaping the future. (3.79)	15	19	57	60	89
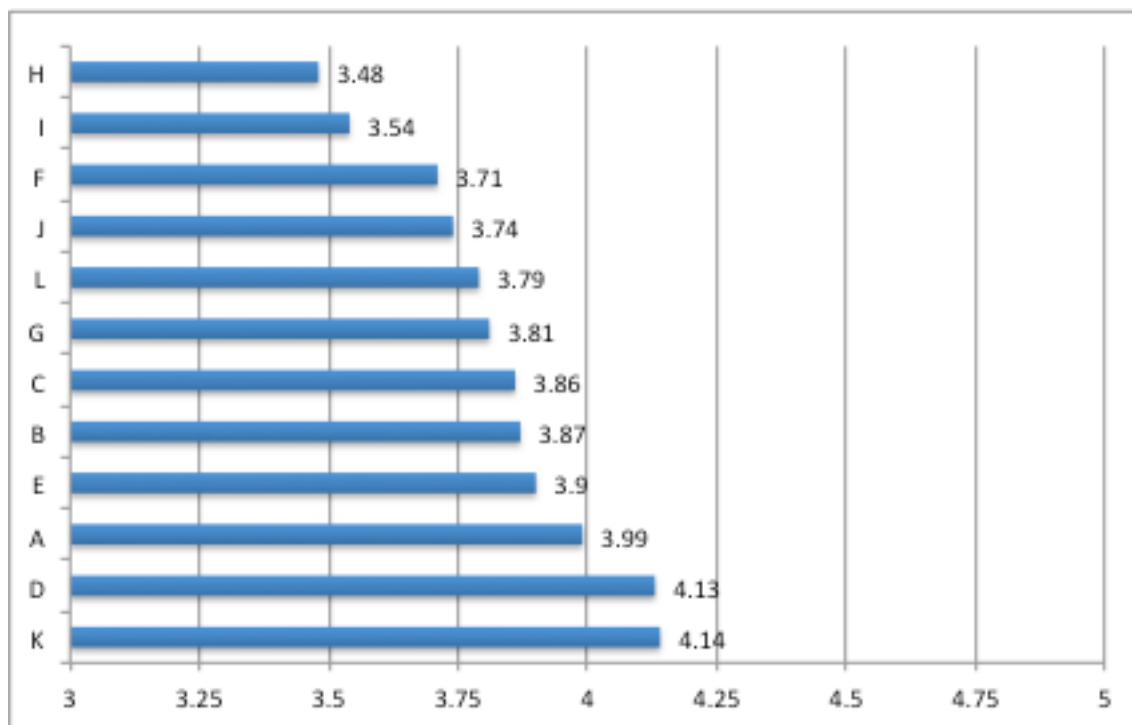
In an open-ended format, we asked, "What are up to five of the BEST things about GIPS?" Only the 242 students who indicated that they participated in GIPS this year viewed this

question, and from those there were a total of 295 responses. We grouped the most frequent

responses into 15 general categories, which are summarized, with sample responses, below, in

descending frequency of occurrence.

TEAMWORK-GROUP WORK, COLLABORATING, WORKING WITH FRIENDS (131).

CREATIVITY & IMAGINATION, THINKING DIFFERENTLY (96). Sample responses: develops creative thinking skills; challenging myself to be as creative as possible; brainstorming has helped in real life situations; use your mind in new, creative, and innovative ways; forced to be creative and think outside the box; being creative and using my imagination; being able to "think like a preschooler"; watch strange things crop up (and down); allows students to learn about the thinking processes of others.

RESEARCH & LEARNING OTHER SKILLS (63). Sample responses: improving writing skills; listening skills; leadership skills; enables a better understanding of how to express oneself ; you can improve on reading; it keeps me up-to-date on current technologies; taught my team to compensate for each others weak points; learning how to get ideas on paper-expressing what you want to say in limited time/space; teaching us how to stay organized; how to draw information from different places.

LEARNING-GENERAL (61). Sample responses: You learn many new skills; You learn about things you normally wouldn't learn about in class; Good educational topics helping to learn about life.

FUN, ENJOYABLE (58). Sample responses: the entire process was really enjoyable, personally; it's fun to come up with solutions.

LEARNING ABOUT FUTURE (58). Sample responses: you realize that what happens now effects the future; helps you think about things that we do not have right now; it really highlights issues that we could be dealing with in the future...the students in the program now are going to be the leaders for when the scenarios are set so its really thought provoking knowing that these are some of the possibilities that lay ahead of us that we're going to have to deal with... its sort of giving us a head start and getting us to look at the issues from different angles.

STRUCTURED PROBLEM-SOLVING PROCESS (55). Sample responses: learning how to solve problems in new ways; I can methodize problem solving on the most important issues, and make decisions about how to focus on the most prominent problems in the world today; you learn an important problem solving process.

COMPETITION & TRAVEL (38). Sample responses: it's a competition, so it's exciting and fun; State/National/IC attendance and experience; travel to other places (out-of-town or USA.).

MEETING (NEW) PEOPLE (36).

CHALLENGE/CHALLENGING/ INTERESTING (35). Sample responses: it challenges you; there are interesting topics; intellectually stimulating; you have to challenge yourself.

LEARNING-GLOBAL PERSPECTIVES (26). Sample responses: learning about world issues; it widens our view of the world; it allows me to understand other cultures better.

TIME MANAGEMENT (22). Sample responses: develops time management skills; it shows us how to use time wisely and not waste time.

MAKING A DIFFERENCE (19). Sample responses: it makes you feel like you can really make a difference in the world; you can change your community; its life improving; I love feeling like I have an impact on things.

PERSONAL GROWTH & DEVELOPMENT BENEFITS (13). Sample responses: it looks good on a college resume; employers are more likely to hire you if they know you take part of FPS; feeling good about yourself, helped me to identify some of my individual strengths and weaknesses.

EVALUATION & FEEDBACK (8). Sample responses: being recognized for achievements; we get thoughtful evaluations; getting back your results and seeing how awesome you did.

Several responses that were infrequent and of generally limited significance: going on field trips (mentioned by seven students), "getting out of class" (mentioned by eight students), having food or snacks (mentioned by six, not all from the same location, with emphasis on donuts and chocolate milk), the leader or teacher (mentioned by four), and skits or Action Plan presentations (mentioned only by four).

In another open-ended question, we asked: "What are up to five things that should be improved about GIPS? There were 189 responses to this question. We begin by noting that 28 responses (or about 12.7% of those who wrote any response to this question) wrote "nothing" or a similar expression. Responses that were given by 5% or more of the students who answered this question fell into seven broad categories. These were (in descending order of frequency):

TOPICS OR "PROBLEMS" (52). Fifty-two students identified improvement to be considered in this area. The major sub-themes in these responses include: making the topics more interesting and relevant to young people, providing more information or making the topic more comprehensive (e.g., "Occasionally problems and research

materials can be very, very difficult to understand due to their wording and lack of comprehensiveness"); more attention to the relevance and interest of topics in relation to age groups (e.g., "make issues more personal with age group concerns"); and, providing more variety or choices among topics.

FUTURE SCENES (40). This was identified by 21.2% of the respondents. While many of these responses simply said, "Future Scenes" or "better, more interesting future scenes", several themes were evident. These included addressing such needs as: making the Future Scene more realistic or probable; making them more exciting to young people; greater clarity (less easily misinterpreted). One more detailed comment was: "The future scenes aren't necessarily futuristic--though there are mentions of holograms or hover cars, the scenarios themselves are often too similar to recent world events and have actually already been solved."

TIME (35). These responses were almost all suggestions concerning increasing the time allowed to work.

RULES (24). Sample responses: clearer rules; I think there needs to be a relaxing of rules. I understand that "will" should not be used in challenges and "may" should not be used in solutions. However, sometimes I think the judges go overboard in being rule sticklers. I think they've forgotten that the core of FPS is to solve future problems not who writes the best; requiring 16 challenges and solutions often detracts from the quality of the material. I think that in some cases, many teams have chosen to sacrifice depth for breadth; the method used for submitting answers. I think computers could be provided.

PACKETS (15). Sample responses: make sure all instructions on the packet are clear; better packet style - so we don't have to always switch papers; make informational packets more relevant to topic; there should be more websites; summaries in the packet; the goals should clearer and more precise.

EVALUATION/EVALUATORS (12). Sample responses: more writers should learn how to evaluate; lack of consistency between markers in terms of the amount of and quality of commentary provided.

FEEDBACK (12). Sample responses: the judges' remarks in the national rounds could be given to each team member, as well as the winning teams' solutions, so that other teams could be better prepared in future; more feedback on practice problems; get back our results sooner; judges explain a little more on feedback; the arguably painful ranking system at IC level to decide on the top 10 teams.

PROCESS UNDERSTANDING (11). Sample responses: making the process more simple; make solution brainstorming easier; make steps clearer.

SCORING (9). Sample responses: reduce ambiguity of scoring guidelines; the evaluating sheet could possibly use a few alterations such as where you are scored for the number of categories you've covered; more consistent and easy-to-understand marking system would be desirable; the marking system should be more comprehensive.

PRACTICE, PRACTICE PROBLEMS (7). Sample responses: more practice problems; more practice activities.

TEAM COMPOSITION (7). Sample responses: not have teams be in a rigid structure of four people; teams should be made up to where they can work together; have it harder to get in so that the team members that don't work will not be in it.

TEAMWORK AND COLLABORATION (7). Sample responses: foster a global network of working together, not competition. Maybe start a pen pal program through GIPS; team members across the country could have more days to come together and share information.

ACTION PLAN/SKITS (6). Sample responses: greater focus on skit competition by all FPS Affiliates. Presentation of the action plan needs revising. Some are so rehearsed and others are just a copy of some pop-culture commercial; put more emphasis on practicing the Action Plan.

BOOKLET LAYOUT (6). Sample responses: more room on the booklet to write challenges/solutions; possibly bigger boxes for problems and solutions.

MORE ENJOYABLE (5). Sample response: make it more fun; make it more interesting!!!!

CREATIVITY (5). Sample responses: more ability to express creativity; use more imagination.

EXPAND PARTICIPATION (4). Sample responses: more participation throughout my state. Reach out to schools that do not know about FPS and encourage teachers to become coaches and start a team; promotion of the individual competition.

PROGRAM NAME (3). Sample responses: the name should stop changing (it gets really confusing); don't call it GIPS. It's FPS.

Forty-eight responses were given only once or addressed specifically to local issues or concerns; these included: a lot of people at my school do GIPS because it's easy; trips are expensive and almost always at an undesirable location; how early we work; we miss a few other classes and fun things; when we have homework, we have too much reading; having individual rooms for each team to write in; allowing food or drinks; we should have it more often; more working, less talking; how it fits into our schedule; field trips; I think if we were to use some more outside sources it would help us out; being alone without your friends; food for vegetarians; the time they give the papers. We lost five minutes because the invigilator slowly opened the paper for us; state financial support; easier state subjects; in NJ, we're doing the booklet online. This allows for cheating and not adhering to the 2-hour time limit. I'm not sure

how there's one "Online Day" and one "On-Site Day" for the State Bowl, and how it'll work. Please just stick with the hotel and the two days and skit competition; more field trips; having more outside of the classroom experiences; playing Bingo; using skills from FPS in other situations; learning to listen better and follow directions; feeling that I can make a difference in shaping the future; housing for international competition - maybe we could fundraise to find better accommodations; find cooler places for the State Bowl; GIPS should be a class in schools; FPS website is kind of hard to find things; making it less stressful; make sure moderators in the competition rooms are well trained; sanitation; as a Jewish school, often finals (national and international) fall over Shabbat (Jewish day of rest) and festivals which creates an extra conflict for us that others do not face.

Community Problem Solving (CmPS) Component

For the Community Problem Solving (CmPS) component, 107 (17%) of the student respondents indicated that they did participate this year, and 524 (83%) did not. Ninety-nine indicated participating on a CmPS team and eight indicated Individual. There were 20 at the Junior level, 43 at the Middle level, and 44 at the Senior level.

We asked 11 questions relating to the goals and purposes of the program drawn from FPSPI's purpose statements, on page 2 (above), and from additional goals that we considered as potentially relevant for students. For each question, we asked students to respond, thinking only about the CmPS component, using a 1-5 scale (1= Hasn't helped me at all; 2= Helped me just a little; 3= Helped me—"Okay"; 4= Helped me quite a bit; 5= Really a great help to me). The directions indicated, "The more helpful CmPS has been for you, the higher the score you should choose." The students' responses are summarized in the table on the following page, and the accompanying chart.

Items	1	2	3	4	5
A. Thinking of many different and unusual ideas (3.96)	3	5	21	41	36
B. Deciding on the best solution to a problem (4.07)	1	3	18	49	34
C. Using a process to solve a problem (3.90)	2	3	25	48	27
D. Working together and cooperating with others (4.33)	2	4	11	28	60
E. Helping me become a better leader (3.97)	4	9	19	28	46
F. Finding information in many different places. (3.92)	3	8	20	39	36
G. Preparing information and reporting ideas in a clear way (3.90)	4	8	20	35	38
H. Using skills from CmPS in other situations (home, school, or in other ways) (3.70)	6	11	24	31	33
I. Learning to listen better and follow directions (3.80)	4	7	26	36	31
J. Learning how to make the best use of my time (3.74)	6	6	29	32	32
K. Feeling that I can make a difference in shaping the future (4.13)	4	4	14	35	48
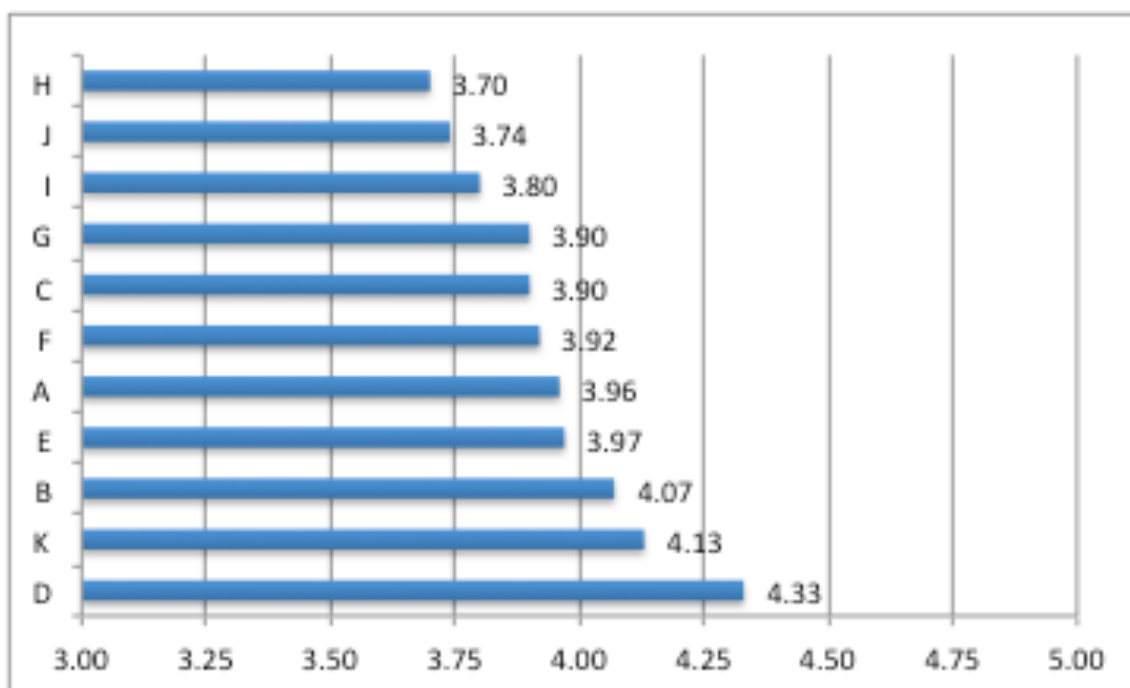
The next item was, "What are up to 5 of the best things about CmPS?" This question was

viewed by 107 students who indicated that they participated in CmPS this year, and of those, 86

responded to the question.

COMMUNITY IMPACT, MAKING A DIFFERENCE (42). Sample responses: making a difference in our community in the present, rather than the future; learning what you can do in the community and things you never knew about it; realizing that it doesn't matter how old you are, because you can still tackle and change a problem within your community; provides students with a chance to step out of their comfort zone and make a difference in the society.

TEAMWORK AND COLLABORATION (33). Sample responses: working as a team to help your community; learning to work with a team over a long period of time; you get to work hard with a team of like-minded people.

THINKING AND PROBLEM-SOLVING SKILLS (32). Sample responses: learn new ways to solve problems; figuring how to go through real life obstacles; it helped me to think outside the box; provides a platform for creativity; allows us to think critically.

COMMUNITY AWARENESS AND AUTHENTIC ENGAGEMENT (29). Sample responses: meeting with people from around the community reaching for a similar or same goal as you; learning from other groups how we can help the community; actually being in the community; interacting with grown-ups (as business partners not as children); realizing how much your community really needs help; it teaches you a lot more about the community than newspapers or television news; applying what we learned about the process in real life.

PERSONAL GROWTH (22). Sample responses: it lets you gain self-confidence in yourself, and widens your perspective on many issues; you get to see how your project progresses from an idea to a huge initiative; it makes me feel good about myself; it forces you to take initiative and actually get out there and do something; it makes you look around and see what it is that needs help in your community... opens your eyes to reality.

SERVICE, VOLUNTEERING (18). Sample responses: helping the community; it makes you feel good that you helped.

NEW FRIENDSHIPS (12). Sample responses: making friends with people that I may not have talked to otherwise; meeting people that you share the same passion with.

OWNERSHIP AND CHOICE (11). Sample responses: the freedom to come up with solutions on your own rather than being told; you get to pick any topic; it's something of your passion.

GLOBAL AND ENVIRONMENTAL AWARENESS (11). Sample responses: learning about different global issues; I can help our planet; know more about the environmental problems around the world.

PROJECT SKILLS (8). Sample responses: depending on your subject matter, you learn a lot of new skills; scrapbooking,; how to make addendums; letter writing; interview techniques; listening; compromise; public speaking skills; presentation skills.

FUN (8).

TIME MANAGEMENT (6).

LEADERSHIP (5). Sample responses: building leadership qualities; acquire leadership skills.

RECOGNITION (5). Sample responses: people being proud of our project; get noticed; coming up with creative and effective solutions that are accepted by people; creating a feeling of accomplishment and pride.

OTHER-UNCLASSIFIED. Sample responses: it can get competitive; the challenge; competition, and sharing ideas; getting to see others projects; the CmPS fair; always making it to States; free stuff; futuristic; they gave us awesome lunch; instructions for our project were very clear; there are lots of hands-on; we get to hold our own road shows, events.

We asked, "What are up to 5 things that should be improved about CmPS?" This question was also viewed by 107 students who indicated that they participated in CmPS this year, and of those, 74 responded to the question. Twenty students reported that no changes or improvements were evident (e.g., I can't think of five things that need to be improved with Community Problem Solvers because the whole program is great; nothing needs to be changed). For those who recommended areas of improvement, we identified eight general categories, which are summarized below, in descending frequency, with sample responses.

MORE DIRECTION (13). Sample responses: better instruction about what to do; outside mentoring by CMPS experts (to run through project ideas); perhaps some criteria about what judges would want to know so that it could guide the first timers.

TEAM DYNAMICS (10). Sample responses: when you have too many members its hard to find a job; keeping track of all notes and exact ones so no one gets confused; ensure everyone participates actively; our main problem was definitely just being able to work as a team effectively; more chances for different groups to interact and learn from one another's project so as to improve on our own project.

ADDENDUM AND PAPERWORK (7). Sample responses: less paper work (i.e. the six page final report and addendum); CmPS involves too much writing, which takes away time from helping our community; differentiating addendums from scrapbook pages; poster.

TIME (6). Sample responses: time management; longer duration of project to give time for CMPS teams to carry out their action plan properly so as to impact the community.

FUNDING (5). Sample responses: costs lots of money to compete; lack of execution due to lack of money; FPS should get more funds/sponsors.

PROCESS AWARENESS AND SKILLS (5). Sample responses: not until a very late stage in the program did we realized there was a structured way to go about solving the problem the FPS way; we shouldn't be constricted by a process by which to do things; maybe process could be cut down -- allow other more creative methods to present the problem.

EVALUATION (5). Sample responses: sometimes the impact on society can't be whittled down to mere words. One has to be there to see and feel it; by grading us and making us compete against each other, it puts the focus off from being about helping the community to doing it to win a competition. Then we start doing CmPS for the wrong reasons, and with the wrong attitude; the judging should be more standardized; if we get first place in state or national we should get money for it.

EXPANDING AWARENESS OF PROGRAM (4). Sample responses: the amount of people who do not know about it; CMPS projects fair to allow people to know more about community service teams like us and thus be more receptive to our ideas and support in our cause.

In this set, there were also several responses that addressed issues primarily or only of local concern. Sample responses included: pushing back States; deciding on a day to meet that every teammate can attend so there are no absent members; having a room specifically meant for the CMPS team so that we always know were to meet; more time to host our event or when we take action; make the meetings in Wisconsin shorter (you can start to get really sore); make the gift exchange start earlier and last longer; looser guidelines - ability to "solve" problems that aren't necessarily right in your backyard. I only say this because in Waunakee we don't have many problems that aren't already addressed; give us more time for lunch breaks or any meal breaks; explain more on what they meant by Community (e.g.: does not only refer to Singapore) because other schools who joined the first time might think that we are only limited on doing Singapore issues; use a bigger convention hall; transportation; more people per group since our group only has 3.

COMMENTS APPARENTLY ABOUT GIPS. Although some students indicated that they had participated in CmPS, and not GIPS, they wrote comments in the CmPS open-ended questions that appeared to be more appropriate for GIPS, and often did not appear to relate at all to CmPS. Our research did not uncover a pattern or rationale for their responses. It is possible that they simply answered the wrong set of questions without realizing it. These responses included statements such as: adjusting the difficulty of problems for the divisions (e.g., "raise the difficulty for the juniors"); needs to be more entertaining; needs to be a half hour shorter; should always be done in a group; needs to help all children of all ages; needs easier ideas; packet topics should be more fun; more people in a group; we should get more field trips; if you have to choose in between 2 people the student that should stay in the group should be the one with the higher grades; more futuristic stuff; require us to work independently; more time given for essays.

## Scenario Writing (SW) Component

For the Scenario Writing (SW) component, 146 (23.1%) students responded that they participated and 485 (76.9%) did not. Of those who participated, 22 indicated the Junior level, 97 Middle, and 24 Senior.

We asked ten questions relating to the goals and purposes of the program drawn from FPSPI's purpose statements, on page 2 (above), and from additional goals that we considered as potentially relevant for students. For each question we asked students to respond, thinking only about the SW component, using a 1-5 scale (1= Hasn't helped me at all; 2= Helped me just a little; 3= Helped me—"Okay"; 4= Helped me quite a bit; 5= Really a great help to me). The directions indicated, "The more helpful Scenario Writing has been for you, the higher the score you should choose." The students' responses are summarized in the table on the following page,

and the accompanying chart.

Items	1	2	3	4	5
A. Thinking of many different and unusual ideas (3.92)	6	5	26	63	43
B. Deciding on the best solution to a problem (3.55)	7	13	46	48	29
C. Using a process to solve a problem (3.50)	9	17	37	54	26
D. Finding information in many different places (3.69)	8	11	34	54	36
E. Developing better writing skills (4.05)	6	5	28	40	63
F. Using skills from Scenario Writing in other situations (home, school, or other ways) (3.32)	16	20	35	46	26
G. Learning how to make the best use of my time (3.45)	12	18	38	43	32
H. Learning about topics that will have important effects on the future (3.99)	7	4	29	47	56
I. Thinking and researching futuristically (4.08)	5	4	26	47	60
J. Feeling that I can make a difference in shaping the future (3.57)	15	14	33	36	45
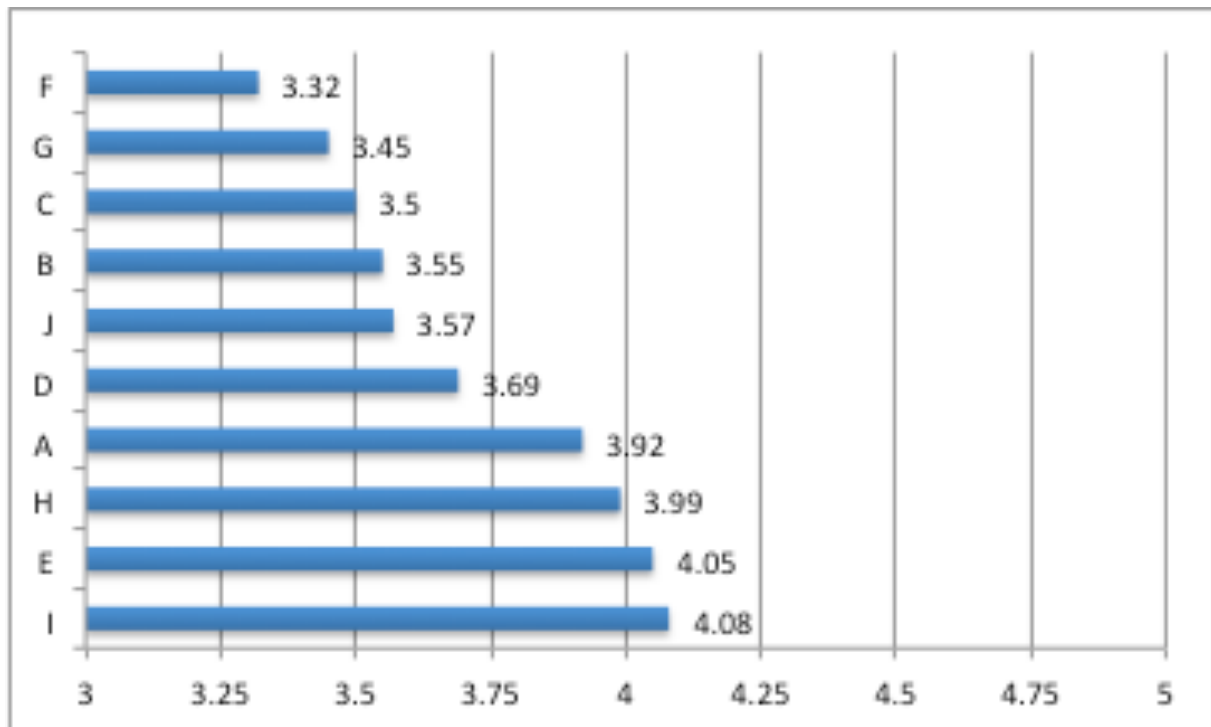
In an open-ended question, we asked, "What are up to five of the best things about Scenario Writing?" This question was viewed by 112 students who indicated that they participated in Scenario Writing this year, and of those, 101 responded to the question. We summarized their responses in the following 11 categories.

CREATIVE AND CRITICAL THINKING (55). Sample responses: allowing yourself to be as creative as you want; it allows you to think out of the box, has lots of space for creativity and freedom with the topic, and at the same time, allows you to understand an issue more by writing about it.

OPENNESS AND CREATIVE FREEDOM (41). Sample responses: the wide range of possible scenario writing structure; you can't do anything wrong; being able to make up your own little world based off of things that pop up in your head; allows me to write about my feeling/thoughts and connect it to the futuristic world; the freedom of creativity - you can write the story with any characters, any future setting, any style of writing (almost); I liked the feeling of telling my story.

WRITING SKILLS (26). Sample responses: it's a good thing to have for creative writers; explore and develop my writing skills; chance to develop my voice as a writer; finding errors in my writing and watching myself improve.

FUTURISTIC OUTLOOK (24). Sample responses: it makes you think futuristically; being able to write about the future is fun, educational, and can be important in life.

FUN, ENJOYMENT (19). Sample responses: the entire writing process is both challenging and enjoyable; the joy about writing about something one is passionate about.

COLLABORATION (18). Sample responses: getting to hear others' creative works; enables me to meet with other budding writers; interacting with others who are interested in similar things.

RESEARCH INSIGHTS (10). Sample responses: interesting perspectives encountered during research; the topics are challenging and very interesting; you can learn a lot more about those issues whilst doing research for the story; the challenge of keeping my writing to one particular topic and then being able to expand on it based on research.

TIME MANAGEMENT (8). Sample responses: I learn to be punctual with time lines; Scenario Writing helps me use my time better; making a good story in a limited amount of time.

CONSTRUCTIVE FEEDBACK (8). Sample responses: gives helpful feedback; real feedback on your writing; some judges spend a lot of time writing their comments and are very insightful. Their feedback helps me with all my writing, not just FPS; learning to take criticism has been a hard lesson that I have learned; evaluation was

very helpful, as it helped us improve on our piece and lets us know our strengths and weaknesses.

        OWNERSHIP AND ACCOMPLISHMENT (7). Sample response: the sense of ownership I feel about my piece of work.

        REAL LIFE APPLICATION (3). Sample responses: applying it to real life situations; it is about real life.

We asked next, "What are up to 5 things that should be improved about Scenario Writing?" This question was viewed by 112 students who indicated that they participated in Scenario Writing this year, and of those, 101 responded to the question. Fifteen responses indicated "nothing," or "I think it's really fine as it is." We grouped the other responses into the following three categories.

        WORD COUNT (32). Sample responses: there should be a higher maximum to the word count; 1,500 words is really short. It is hard to develop the characters, the plot, and the scenario in this amount of words - not to mention introduce a problem and bring it to a logical conclusion; even though it is fun to challenge myself to a 1,500 word limit, it's also really irritating - maybe the word limit should be bumped up; it should be shorter.

        TOPICS AND CHOICE (25). Sample responses: there should be topics other than the regular competition topics; a student could pick the topic she/he will write about; when you might want to write about social problems, or medicine, the "theme" for the that contest might be technology or food. Then you can't do what you prefer; could allow more forms of writing, such as poetry.

        GUIDELINES AND DIRECTION (8). Sample responses: better explanation and guidelines; better examples for writers to know how to write one; give out past year winner essays; learning the different steps about scenario writing; evaluators should be allowed to write comments next to each evaluated component-- the ones that are scored-- much like the evaluators in team FPS write comments for the challenges, solutions, and such. This will help explain confusing reasoning or give ideas on how to improve for the future.

The remaining comments were largely individual or local concerns regarding timing, evaluation of their own work, being satisfied (or dissatisfied) with their personal group placements at IC, or on-line submission mechanics.

The table on the following page summarizes the students' ratings for the goals and outcomes items for all three program components; items varied slightly among components.

Item	GIPS	CmPS	SW
Fostering creative thinking (thinking of many different and unusual ideas)	3.99	3.96	3.92
Fostering critical thinking (deciding on the best solution to a problem)	3.87	4.07	3.55
Using a process to solve a problem	3.86	3.90	3.50
Working together and cooperating with others	4.13	4.33	3.69
Helping become a better leader	3.90	3.97	---
Finding information in many different places	3.71	3.92	---
Preparing information and reporting ideas in a clear way	3.81	3.90	---
Using skills from FPS in other situations (at home, in school, or in other ways)	3.48	3.70	3.32
Learning to listen better and follow directions	3.54	3.80	---
Learning how to make the best use of my time	3.74	3.74	3.45
Learning about topics that will have important effects on the future	4.14	---	3.99
Feeling that I can make a difference in shaping the future	3.79	4.13	3.57
Enhancing and expanding writing skills	---	---	4.05
Thinking and researching futuristically	---	---	4.08

Summary of Students' Results

In this section, we presented the quantitative and qualitative survey results from 633 students. They reported positive feedback regarding this year's program, with 90% of the students indicating that they were either satisfied or highly satisfied with their experience. The survey results confirmed that each of the program components met the program's purported goals and objectives. In addition to meeting the program's goals and objectives, the students indicated that they had gained other important lifetime skills. Several students pointed out that the program met their need to be intellectually challenged. While the students noted the program's overall strengths, they also cited a number of areas where the program could be improved. Although a strength of the program is its structure, for example, the data suggested that the effectiveness of the program often hinged on competent, well-trained, committed coaches (which was not universally present).

Section VI: Results from Parents

The 195 parental responses we received were primarily from females (161, or 83%, compared with 34 males, or 17%). Only a small number (six, or 3%) had ever participated in FPS themselves as students, and 84% of them (163) indicated that they had not been involved in FPSPI this year in any role other than as a parent. Six (3%) reported having been coaches, nine (5%) were evaluators, and 24 (12%) described a variety of other roles, including: fund raising, serving as a chaperone, providing transportation, assisting a coach, giving a science demonstration, serving as a hall monitor, emceeing, assisting with finding a guest speaker, or other short-term volunteer tasks.

The average age of the children reported by the parents was 12.6, with a range from 6 to 22 years of age. A majority of parents (113) indicated that they had other children who had not participated in FPS this year. Of these, 51 (45%) checked "too old," 29 (26%) said the program was not available at the child's school, and 28 (25%) indicated that the other child or children were not interested in participating. "Other" responses included not being selected by teachers to participate, not being in honors classes (and therefore not "eligible" to participate), or the program being available only to "selected" students; other commitments and activities (academic, athletic, or work, for example); or a perceived "lack of fit" between the program and a child's special needs (e.g., "autism spectrum disorder").

Satisfaction With the Program

We asked about the parents' satisfaction with the program (from their perspective as parents). Using a 1 – 4 scale (low; limited; moderate; high), the average score for this item was 3.31; 88% of the parents indicated that they were moderately or highly satisfied with the program. The distribution of the responses was:

1 (Low)   5 (3%)

2 (Limited)   12 (10%)

3 (Moderate)   87 (41%)

4 (High)   117 (47%)

We also asked parents about the FPSPI components in which their youngsters participated this year, and about their youngster's overall level of satisfaction with the program. The parents reported that 121 youngsters (56%) participated in Global Issues Problem Solving (GIPS), 59 (or 27%) in Scenario Writing (SW), and 36 (or 17%) in Community Problem Solving (CmPS). With respect to their youngsters' satisfaction with the program this year (as perceived by the parents) the average rating from the parent responses was 3.43, distributed as follows:

1 (Low)   5 (2.3%)

2 (Limited)   12 (5.4%)

3 (Moderate)   87 (39.4%)

4 (High)   117 (52.9%)

When asked, "What do you anticipate your youngster's level of interest will be in participating in FPSPI again next year?" the parents' responses were:

Will be too old: 9 (4.1%)

Program will not be offered   8 (3.7%)

Low or Not Interested   13 (5.9%)

Uncertain Interest   61 (27.9%)

High Interest   128 (58.4%)

More specifically, we asked, "If any of your youngsters could participate again next year, but probably or certainly does not intend to do so, please explain briefly why." Nine parents cited

problems in the program's logistics or operation that discouraged future participation. For example, these included:

- Community Problem Solvers is poorly run, no guidelines and the coordinator is prejudiced against specific schools.

- This could have been a GREAT program- but so poorly executed that no one participates.

- Unfortunately, this level of passionate coaching greatly diminished at our middle school and high school -- the energy was not the same, and for a year or two we didn't even have a coach….

- Too limited in the way material is covered. Created busy work many times.

- It does not look like there's any standard program which they follow. Lessons are ad-hoc and I wonder what the kids learn. When asked, they only seem to be having lots of fun playing with other kids during lesson.

- Lack of appreciation of kids' efforts.

Eight parents cited the time required for participation in the program. For example, these included responses such as, "too time consuming with the homework and outside research," "will probably not have time in high school," or, "it takes up too much time and I want them to concentrate more on their studies." Six parents cited other competing activities (e.g., "he is very busy with other co-curricular activities") or the desire (on the youngster's part or on the parent's part) for a variety of experiences for the youngster (e.g., "they would like to try something new"). Five responses cited the complexity or difficulty of the program (e.g., "hard to understand in some areas and very challenging in some activities") and the youngsters' lack of enjoyment. Five responses indicated that their school would not be maintaining the program, or that the

school the youngster would attend next year does not offer the program (whether within the same area or through a family move). Some respondents noted that there might be questions about the youngster's eligibility to participate (e.g., "not being tested into the program," or "not being selected for the program").

Program's Strengths

Next we asked for parents' perceptions of "up to five main strengths" of the FPSPI program. Their most frequently given responses fell into four principal categories:

Teamwork, collaboration, and working in groups (92 responses) Sample responses: Working as a team; children collaborate; team work - not always smooth with teens but valuable in the long term; It gets the kids to work together; team building.

Creativity (88 responses). Sample responses included: creativity; creative thinking; innovative thinking; using their imagination; "thinking out of the box."

Teaching problem-solving methods, process or steps (77 responses). Sample responses: problem solving skills; discussing and solving problems; solution generation and solution synthesis skills; methods for solving a problem; understanding the real problems and finding solutions; creative problem solving; the skills to tackle problems.

Critical, logical, or analytical thinking (48 responses). Sample responses: critical thinking skills; logical thinking; analytical thinking; complex thinking; decision-making skills. Ten additional categories of response were given more than 10 times each; these were:

Global issues and awareness, global citizenship (29)

Leadership skills or leadership development (25)

Time management (24)

Writing skills (18)

Futuristic thinking, general (18)

Positive attitudes, motivation, encouragement, and rewards/success (17)

Socialization, peer relationships, expanding friendships, diversity (16)

Research skills (13)

Organization of program, organizational skills (11)

Communication and presentation skills (11)

Other responses that occurred more than once but in fewer than 10 parents' responses were: community issues and current affairs; interacting with other high ability kids; independent thinker; coaches and coaching; challenge and complexity; fun; travel and the opportunity to attend bowls; and responses involving a general statement about "good thinking" (e.g., expressing ideas quickly and clearly; quick thinking). One other cluster of responses cited a variety of specific school-related benefits and skills, including math, reading, study skills, "help with high school courses," and other specific academic benefits observed by individual parents.

Perceived Areas Needing Improvement

The next question asked parents to identify up to five areas that they felt need improvement about the FPSPI program. Among the 195 parent respondents, the most common reply to this question (54 respondents, or 27.7% of this sample) was, "None" or "Nothing." No single response or topic was mentioned by more than approximately 12% of the respondents. Although several themes did emerge from the parents' responses this suggests that, as perceived by this sample of parents, potential areas of improvement were widely dispersed across the program or quite localized in nature. The most frequent themes (with examples of specific items from them, unless the category states the actual responses that comprised it) are presented below; the number in parentheses represents the number of parent responses included in the category.

PARENT COMMUNICATION AND INVOLVEMENT (24). Sample responses: communication to parents about the program comes entirely from the students, that means little communication from middle school kids; more communication to parents what competition entails, what is it all about, time commitment; more explanation and understanding for parents about the evaluations, and the goals as a team; [information] specifically for the first timer parent; more information about child's activities, progress; "I have not seen my child's work and she has participated 6 out of the last 6 International Conferences"; I think if more parents knew the amount of work the coaches put into the year preparing the kids and more about the process, you could get more parent volunteers; "ideas on the best ways to help their child before they ask that off the wall question and you just look at them like they're on drugs or something...."; keeping parents in the loop; overview of expectation; checklist to keep parents updated on the progress; how we may support that learning at home; ["The first I heard of my child's involvement in FPSPI was when I received this survey invitation."]

EXPAND AWARENESS, PR, PUBLICITY (14). Sample responses: greater awareness and publicity of the program. Most schools in the state do not participate; better advertising of the program; more public awareness in the local town and press releases to their state dignitaries; greater publicity and encouragement from commercial sponsorship and [government]; publicity of State Bowl and International Conference participants and winners.

TRAINING & EFFECTIVENESS: TEACHERS, COACHES, MONITORS (14). Both in schools participating and to encourage teachers in schools not now participating.

TIME AND PLACE IN SCHOOL CURRICULUM (13). Sample responses: address issues of when and how often program meets, time and role for program in curriculum (e.g., "should be offered as a course in the school district and not as an extra. The amount of work and the skills involved are much more beneficial than some of the other coursework that my son is required to do in his other classes"); BUT SOME: "It should not be too demanding as the children do need to focus on their school work and their other co-curricular activities."

EXPAND TO MORE SCHOOLS AND STUDENTS (12).

CONCERNS REGARDING EVALUATION, SCORING, AND FEEDBACK (12). Sample responses: consistency in scoring; training and accuracy of evaluations; enhancing feedback (and providing more information on ways to improve their work); punctuality or timeliness of feedback.

INCREASE SUPPORT BY SCHOOLS AND COMMUNITY (10). Sample responses: better school coordinator support for what the kids were doing; funding to [sustain and] grow program; more involvement, importance from

school, checking with team members on their level of contributions.

EXPAND RESEARCH RESOURCES AND ACCESS TO THEM (10). Sample responses: encouraging them to do own research and share; involving experts from the topic; exposure to more background articles; links to programs where the young investigators can discuss with real professionals in the field study.

CONCERNS FOR RELEVANCE AND SUITABILITY FOR TOPICS (8). [Particularly for younger students]; better topics according to their age; not so time consuming for the younger children; questions about maturity of some topics for younger ages; seeking ways to increase relevance of topics to students' life experiences. Four respondents suggested expanding the choices of topics for students.

TEAM COMPOSITION, SIZE, SELECTION (7). Some proposed more selectivity, others less; some, more students on a team, others less; some pointed to importance of having students who want to participate; one raised question about making "substitutions" on a team.

THE FUTURE SCENE (7). Sample responses: future scenarios should always be straight forward —some are too complex or not focused; more interesting future scenes; two suggest broader scope, one says probably too broad.

SUSTAIN PROGRAM AT OLDER AGE LEVELS (6). Sample responses: develop the program more at the middle and high school levels by recruiting and training more teachers to be coaches; especially in older grades students who wish to participate must do so on own time; need to make the topics more interesting to teens; more opportunity for mentoring and co-coaching as they come up through high school (so they remain involved post school; a new level of challenge to keep extending their skills after a few years involvement.

COST (5).

CLARITY OF GOALS, TASKS, ROLES, AND EXPECTATIONS TO STUDENTS (5). Sample responses: clearer definition of tasks to the children; articulating objectives and pre-activity material; each student's role should be defined before attempting the problem; model solutions can to be given to children for more thinking-through, more areas to reach out to, let children understand more about these areas.

EXPANDED OPPORTUNITIES FOR COMPETITION (4). Sample responses: providing additional competition opportunities or increasing the number of practice problems during the year; one parent wrote, "go beyond the competition through a continuing program of activities to maintain their interest and awareness of the issues that they have already researched and presented for

the competition."

WEBSITE AND USE OF TECHNOLOGY (4). Sample responses: online communication beyond the website through other mediums; better website to contain content for guest speakers and current guidelines for the Scenario; increased opportunity to research topics online as well as traditional methods.

RECOGNITION OF STUDENT EFFORT AND ACCOMPLISH-MENTS (3). Sample response: "For the amount of work/time/effort involved there is very little recognition or encouragement. What a shame!!!"

Three additional topics were each cited twice: increasing the "fun" in the program; questioning the value and relevance of skits; and limited opportunities for FPSPI participants to interact other than at International Conference. Several other items mentioned were comments regarding a specific local or state question or practice.

We also asked parents (as we asked a similar question to all groups of respondents) what they would tell someone who asked them about the program for their children. We will present the responses to this question in Section VIII of this report, below.

The final section of the parent survey invited the respondents to state "any other question that we should have asked you, but did not ask," and then to give their response to that question. Most respondents did not pose any additional questions. Among those who did, some singled out specific aspects of their youngsters' experiences with the program, or specific individuals in their local area, for praise or critical comment. The questions and responses that addressed topics of broader relevance for the goals of this project are summarized in the following table.

Parent's Other Question	Answer
What is the support level for the program in your particular community?	Strong among participating families; outside support varies based on parental awareness.
Are there any particularly memorable moments of experiences relating to FPS and your child (ren)?	When I heard them using FPS terminology in regular conversation I knew the skills were transferring. My girls also cite … the opportunity to attend the Australian National comp (4 times for one, twice for the other) and mix with other equally bright intense and able thinkers. Social media now makes it easier to keep in touch than it did initially. Overall, FPS is something I am very glad they were involved in and I know it will be a lifelong skill
What do you need from central office to better support the program at your school?	materials, webpages, videos, more social media materials etc.
How much were you, as a parent, involved in your child's input into the project. AND How much did you follow the project your child was doing?	absolutely no input whatsoever. AND hardly knew anything about it-even that they were doing all this work!-until the final stages of competition.
I think the children should be given scenarios that can be submitted to governor- future- no one working, no athletics or music in school, etc. & see what they come up with	I don't know why it hasn't been done
How can we get more schools to use this program	Get the word out to G/T parents so they demand this program
1.What is the communication of the program with parents? 2. How does your school serve gifted students?	1. limited 2. By having them take classes at a community college.
Is it feasible for students to have input into the issues selected for discussion?	Could pose a range of issues with students being allowed to vote on their top choices.
Should there be a chance for different schools to exchange ideas?	There should be more interactive sessions between different schools, other than the competitions.
DID YOU KNOW YOUR CHILD WAS PARTICIPATING IN FPSPI?	NO, NOT UNTIL THE INVITATION FOR THIS SURVEY.
Yes. Should we look at dividing the grade levels differently? If so, Why?	It is difficult for a seventh grade team to compete against a Freshmen in high school team
Should they have a choice in whether or not they want to participate?	Yes, they should have a choice; and the choice to participate would be NO!
Why is this a competition rather than a programme? If we are to instill in the next generation a greater awareness of their future on this planet, this has to be an ongoing activity.	Bring like-minded teenagers together across the planet - they should shape their future today.
As a parent, do you want to know what's being taught in this program	Yes
What is the level of parent involvement?	Minimum

Summary of Parents' Results

The parents who responded to this survey were moderately positive in their view of the FPSPI program, as well as in their perceptions of their youngsters' satisfaction with the program. Instances in which parents reported that their children would not (or probably would not) continue their involvement in FPS, if they had the opportunity to do so, were typically the result of an issue or concern unique to their specific setting, rather than to a general or programmatic issue.

The parents generally recognized the same areas of strength in the program as were identified by ADs, coaches, and students. These included: teamwork and collaboration, fostering creative and critical thinking, teaching an explicit problem-solving process, being exposed to global perspectives and important future issues, and a broad range of academic and interpersonal skills that would have lifelong value.

While many parents reported no major areas needing improvement, several important opportunities and areas of concern did arise. These included: parent communication and opportunities for involvement, expanding publicity and awareness of the program (and program expansion), training and effectiveness of teachers and coaches, role in the school curriculum, and some concerns for topic appropriateness and relevance (particularly for younger students).

Section VII: Results from Program Alumni

Overall the responses of FPSPI alumni describe a program that has had a lasting impact on its young participants. That said, it must be noted that out of the thousands of students who have participated over the years, only 48 program alumni responded to the current survey. This is a very small, and certainly neither a random nor a representative sample of the alumni population. As a result, we must exercise the greatest degree of caution in interpretation of the results. Probably the best we can do with these data is to consider them in context with the responses of other groups, and to look for "gems" that might be present for the program to use, or directions to guide more extensive inquiry as your plans for an alumni organization move forward.

Demographic Information

The first seven items on the alumni survey dealt with demographic information. Demographically the group seems well balanced in terms of age. We heard from recent participants, as well as those who participated as students over two decades ago. The majority had participated through much of their school experience. We received feedback from those who participated in teams, individually, and in each of the program components.

We received responses from 33 female respondents (69%) and 15 male respondents (31%). At the time of response, their ages ranged from 17 to 41 (Mean = 26.3; Standard Deviation = 6.4). One alumnus had only participated for one year, seven (14.6%) for two to four years, and 40 (83.3%) had participated for five or more years. In relation to the school years during which they had participated, 22 (46%) participated during Elementary School, 42 (88%) during Middle or Junior High School, and 46 (96%) participated during their High School years. Several of the alumni participated in more than one area of the program. Forty-five indicated that

they participated on Global Issues Problem Solving teams, and one as an Individual. Twelve indicated that they had participated on a Community Problem Solving team. One participated in CmPS individually. Fifteen (15) participated in Scenario Writing.

Program Evaluations

The next four groups (including 14 total items) inquired how the responding alumni felt about specific aspects of the program when looking back on their participation: goals and rules and each of the three program components (GIPS, CmPS, and SW). We asked the respondents to rate those aspects of the program from one (low) to five (high) as follows: 1=Poor - Major Change is Needed; 2=Weak - Needs Some Improvement; 3=Okay; 4=Good; and, 5=Great. If the respondents were unable to answer the item for any reason, they were asked to mark the column labeled U. The tables below show the responses to these items and begin with a question that dealt with the program's goals and rules.

Question	1	2	3	4	5
A. The program's goals were easy to understand. (4.46)	0	0	2	22	24
B. The rules were fair and easy to understand (4.28)	0	1	6	24	17

The alumni were then asked to comment on their assessment of various aspects of the GIPS component. Note that while all 48 of the participating alumni responded to the six questions that made up this item, one responded "U" for items A, B, C and F, while two respondents gave a "U" response for items D and E. The responses are summarized in the following table and in the chart on the next page.

Question	1	2	3	4	5
A. GIPS ("booklet") component Practice problems were interesting (4.21)	0	1	4	26	16
B. GIPS ("booklet") component Practice problems were challenging. (4.28)	1	0	8	14	24
C. GIPS ("booklet") component Evaluator	0	2	9	25	11

feedback was helpful. (3.96)					
D. GIPS ("booklet") component Qualifying Problems were interesting. (4.37)	0	0	2	25	19
E. GIPS ("booklet") component Qualifying Problems were challenging. (4.70)	0	0	3	17	26
F. GIPS ("booklet") component Evaluator feedback was helpful. (3.98)	0	1	10	25	11
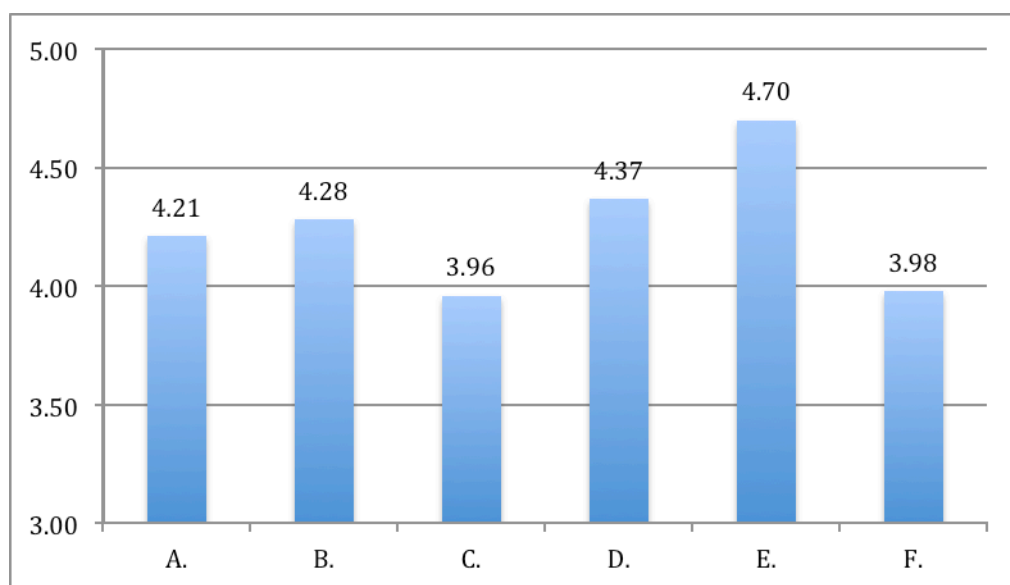
The next three items considered Community Problem Solving. The instructions were: "Thinking about your overall experiences as a participant in the program, what was really good about Community Problem Solving (CmPS)? What should be improved or made better? (Check "U" if you didn't do CmPS.)" While 36 of the 48 respondents reported that they were unable to answer this item, not having taken part in CmPS, 12 did respond. The averages for their responses to this question are based, therefore, on the group size of 12.

Question	1	2	3	4	5
A. CmPS component problems we worked on were interesting (4.33)	0	0	2	4	6
B. CmPS component problems we worked on were challenging (4.33)	0	0	2	4	6
C. CmPS evaluator feedback was helpful (3.67)	0	3	1	5	3

Respondents were asked to consider their overall experience with the Scenario Writing component. Thirty-four of the alumni participating in this survey were not able to answer the three items that made up this question. As a result, the averages for the responses on these items, presented in the table on the following page, are based on a total of 14 responses.

Question	1	2	3	4	5
A. Scenario writing problems were interesting. (4.21)	0	0	3	5	6
B. Scenario writing problems were challenging. (4.21)	0	0	3	5	6
C. Scenario writing Evaluator feedback was helpful. (3.43)	1	2	4	4	3

Current Participation and Technology

Ten items addressed the participants' current involvement and experience with the FPSPI program, their continued relationships with other program alumni, and their use of social media and the FPSPI website. Six (6) alumni reported coaching one or more teams; 38 currently serve as evaluators; 3 are Future Scene writers; 6 are Affiliate Directors (ADs); and, 15 volunteer in other ways.

Forty-two (42) of the participating alumni reported keeping in contact with other alumni. Following up on that item we requested more details concerning their maintaining contact with other alumni asking: "If yes, in what ways? (If no, why not?)?" There were 43 responses to this open-ended item. The responses clustered into four general categories; these categories are presented below, in descending order of their frequency of occurrence among the responding alumni.

In what ways do you keep in touch with other alumni?	
Comments	Number of like responses
Still friends or schoolmates who meet socially	24
Maintain or extend contact through email or social media	21
Stay in touch as a result of continuing FPS involvement	12
Contact has not been maintained, no reason given	2

The next question dealt with social media usage. Forty-four (44) respondents reported participation in one or more social networking sties. Four did not participate in such sites. Facebook usage was reported by 35 alumni, while 3 used Twitter, 1 Linkedin and 4 other forms of social media. One participant used both Facebook and Twitter, two used Facebook and Linkedin, and two reported using all three sites.

We also asked if those using social media used it to keep up with other former FPSPI participants. Thirty-three responded "yes," 11 responded "no". Thirty-seven said that would like to keep in touch via social media, 7 said they would not.

All 48 of the alumni responding to the survey answered the question: "Do you visit the FPSPI website?" Thirty (30) responded "yes," while 18 marked "no." We also asked those who did visit the website to briefly describe why they did. Twenty-nine (29) offered short explanations. The responses clustered into seven categories; these categories are presented below, in descending order of their frequency of occurrence among the responding alumni.

Use of FPSPI website and reasons for visit	
Comments	Number of like responses
Visits in the capacity of program volunteer (coach, Affiliate Director, Evaluator)	17
Visits for information and news	9
Visits to check information on topics	6
Visits to obtain Zippy Mart information	2
Visits to make a suggestion	1
Visits to check competition information	1
Visits to direct others to the site	1

Two items focused specifically on the FPSPI website. All 30 of those who reported using the website responded to an item asking the respondent to rate the FPSPI website itself. Responses were as follows: 1=Strongly Disagree (SD), 2=Disagree (D), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA). As can be seen below one of respondents of the 30 was unable to answer all three questions.

| Statement	1	2	3	4	5
A. The website is attractive. (3.34)	1	4	10	12	2
B. The website is interesting. (3.45)	0	4	12	9	4
C. The website is useful. (3.86)	0	4	2	17	6

Fourteen of the 30 reported website users responded to the question: "What might you add to it or change about it?" The responses clustered into four categories; these categories are presented below, in descending order of their frequency of occurrence among the responding alumni.

Suggestions to change FPSPI website	
Comments	Number of like responses
Provide more clarity, a new design, a newer look	9
Add more links, including links to other state programs	2
Provide more opportunities to interact with others	1
Provide more information, and more resources on topics	1

The Importance and Value of FPSPI Participation

Four items focused on the past experiences of the participating alumni and the impact those experiences had on their development into adulthood. The first of this group asked: "As you look back on your experience in FPSPI, how important and valuable has each of these aspects of the program proven to be for you?" Responses ranged as follows: 1=Not Important, 2=Of Little Important, 3=Somewhat Important, 4=Very Important, 5=Extremely Important. An "N/A" option was also offered. The table and chart below summarize the responses for this set of seven questions.

Question	1	2	3	4	5
A. Forming personal relationships (4.04)	0	3	13	10	21
B. Learning ways to think of many different and unusual ideas (4.75)	0	0	1	10	37
C. Learning how to choose the best solution for a problem (4.42)	0	1	6	13	28
D. Learning a specific process for solving problems (4.35)	0	2	5	15	26
E. Learning to find information in many different places (4.06)	1	3	8	15	20
F. Developing better writing skills (4.36)	0	1	6	15	25
G. Learning to receive and use feedback from evaluators (3.71)	1	3	11	27	6
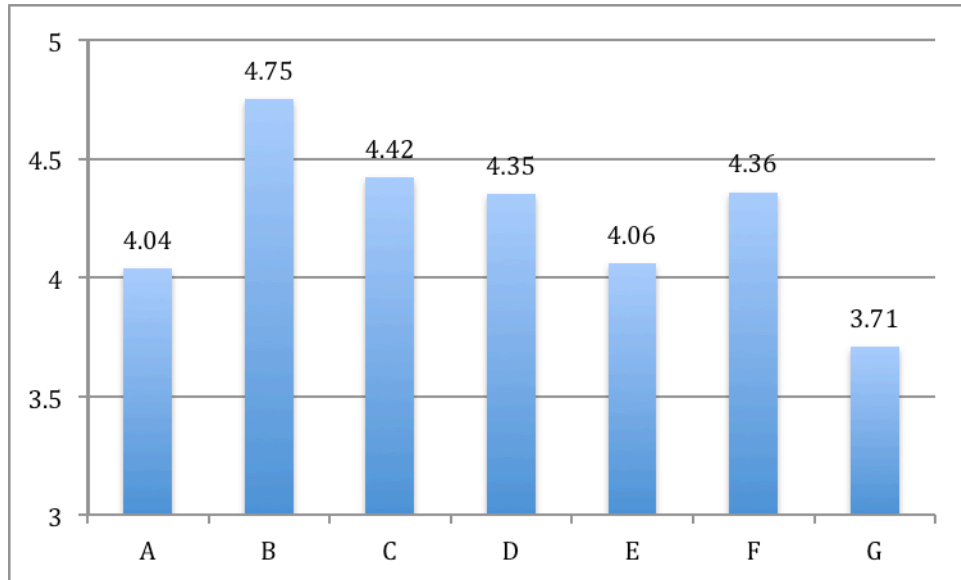
The second item in this group asked: "As you look back on your experiences in FPSPI, how important and valuable has each of these aspects of the program proven to be for you?" The response options for the seven questions making up this item were the same as those above: 1=Not Important, 2=Of Little Important, 3=Somewhat Important, 4=Very Important, 5=Extremely Important and "U". The questions and responses are summarized in the table and chart below.

Questions	1	2	3	4	5
A. Participating in competition (4.08)	0	0	12	20	16
B. Learning how to make the best use of my time (4.10)	0	3	7	20	18
C. Learning how to work or collaborate with others (4.41	0	0	4	15	20
D. Developing leadership skills (4.11)	0	1	10	19	17
E. Learning about complicated topics that will have an important effect on the future (4.23)	0	1	8	18	21
F. Thinking and researching futuristically (4.19)	0	2	9	15	22
G. Feeling that I can make a difference in shaping the future (3.77)	0	6	12	17	13
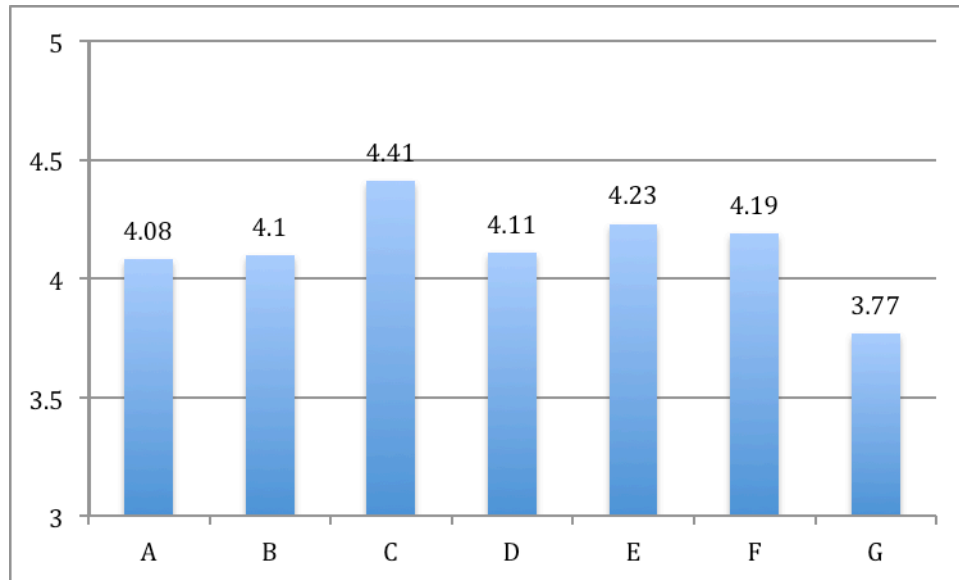
The next item: "How helpful was your experience in FPSPI in each of the three areas below?" was comprised of the three questions in the table below. The responses options were: 1=Not at all, 2= A little, 3=Some, 4=Very helpful, 5=Extremely helpful and "U."

Question	1	2	3	4	5
A. In your work in school (through and including high school (4.17)	0	2	7	20	19
b. In your academic work after high school (4.35)	0	2	3	18	23
c. In other life experiences outside school or academic (4.21)	0	2	7	18	21

Thirty-seven (37) of the participating alumni responded an item which asked them to describe specific examples of ways in which their "FPSPI participation was (or still is) valuable to you in any of your personal work". This was an open-ended item. The responses clustered into eight general categories; these categories are presented below, in descending order of their frequency of occurrence among the responding alumni.

In what ways was (or is) FPSPI participation valuable to you?	
Comments	Number of like responses
Gave me confidence dealing with problems and employing a process when faced with challenges	24

Improved my ability to analyze problems without bias	14
I was helped by my knowledge of CPS or the six-step process	12
Improved my ability to work with others	10
Improved my time management and/or planning skills	6
Influenced my career decisions, lifelong interests, and/or volunteer service	4
Contributed to my abilities as a teacher	3
Improved my leadership skills	3

Next respondents were asked to "describe a specific example of an important way in which your FPSPI participation was (or still is) valuable to you in any school or academic experiences". Thirty-four (34) alumni responded to this item. The responses clustered into seven general categories; these categories are presented below, in descending order of their frequency of occurrence among the responding alumni.

Specific examples of ways in which FPSPI participation was (or is) valuable.	
Comments	Number of like responses
Participation prepared me for college and/or work	24
Participation helped to hone specific skills, especially in writing and research	13
Participation improved my level of confidence when taking on tasks or solving problems	10
Participation provided a foundational educational experience that cut across the curriculum	7
Participation helped develop teamwork and people skills	6
Participation helped develop time management, organization and planning skills	5
Participation helped me understand the importance of learning the process skills and being able to apply them	5

The alumni participants were asked to list "up to 5 of the best things about your experiences in the FPSPI program?" There were 43 respondents to this item. The responses clustered into twenty general categories; these categories are presented in the table on the next page, in descending order of their frequency of occurrence among the responding alumni.

The best things about experiencing the FPSPI program	
Comments	Number of like responses
The opportunity to learn the skills and/or content knowledge needed to be successful in the program	39
The friendships that were formed	28
The opportunity to learn problem solving, creativity and/or critical thinking	27
The opportunities for travel to state and/or international competitions	24
The teamwork	21
My writing skills improved	15
My research skills improved	13
The competition	10
Participation was challenging and/or stimulating	9
My communications or people skills improved	7
The coaches or other adults	7
The future scenes and thinking about the future	7
The skits	5
The opportunities for mentoring or teaching others	5
The opportunities to learn time management, organization, and/or planning skills	5
The sense of confidence	5
The fun associated with participation	5
CmPS participation	2
The sense of pride	2
The sense of leadership	1

Alumni Recommendations

Four items asked the responding alumni about their recommendations to the FPSPI

program, or to others about the program. The first item in this group asked: "Based on your

experiences in the FPSPI program what are up to five things that could have been (or might be)

improved about it?" Four (4) respondents stated that they had no suggestions, that the program

was strong or had no areas that need improvement, Twenty-six of the 48 participants made one

or more recommendation. Those recommendations clustered into seven categories; these

categories are presented below, in descending order of their frequency of occurrence among the

responding alumni. There were also 9 recommendations that seemed to stand alone. They are

listed at the bottom of the table.

Suggestions that might have improved the FPSPI experience	
Comments	Number of like responses
Evaluation feedback should be improved	13
The program should be incorporated more into schools so that there would be broader involvement and more support	7
Provide more interesting and/or relevant topics	4
Increase publicity for the program	4
The future scenes need more clarification and should be better researched	4
Improve instructions and specifications	3
Provide training for students at the state or regional level	2
Improve guidance for independent research	1
Encourage participants to know the process and develop in-depth research skills	1
Add an adult competition	1
Based on student level of motivation create competitive and non-competitive teams	1
Provide more consistency across Affiliates	1
Provide more flexibility in student preparation at IC	1
Upgrade resources	1
Provide more opportunities for meeting others at IC	1
Find more funding	1

In addition, one respondent wrote: "Quit changing the name. It will make it increasingly

more difficult for alumni and prospective competitors to find the program. It is Team Future

Problem Solving. Not TGIPS or GIPS or whatever it even is now."

Forty of the responding alumni answered the next item: "What would you say to someone

who asks you about participating in FPSPI?" The responses clustered into nine categories; these

categories are presented in the table on the next page, in descending order of their frequency of

occurrence among the responding alumni.

Advice to someone asking about participating in FPSPI	
Comments	Number of like responses
The program is worthwhile, a great and positive experience	20
The program teaches valuable skills	15
Program participation helps individuals in school, life, and/or work	13
Do it!	10
It is fun!	3
Best thing you could do!	2
Awesome, great!	2
Challenging	2
You will learn to make friends and learn to socialize.	2

The last two items asked "What other questions that were not in the survey, should have been asked, and how would you answer those questions?" We received six responses that asked and then answered a question; they are presented in the table on the following page.

Items 31 and 31: Questions that should have been ask and their answers	
Question	Answer
What has been your experience as an adult involved with FPSPI (if any)? How has the program changed for better or worse since you were a student?	As an evaluator, I have had great pleasure in giving back to the program that gave me so much. The score sheets used now are much more helpful in providing feedback on booklets and scenarios than what I remember seeing as a student in the 1990s. I can see definite progress through the year in the materials submitted because we are able to communicate more effectively to coaches and students via the score sheets.
What is one thing you'd change about the FPS program as it stands?	ESPECIALLY for older participants, I would increase the "heft" of the readings that are required. By junior high or high school, students should be able to (or asked to) read scientific journal articles in their entirety and other more comprehensive works.
What frustrates you about the organization?	I think FPS alumni should be used more as consultants, staff, the driving force of the organization, to bring more creative possibilities to the organization and how it portrays itself. The website, materials are very un-futuristic (no networking, no online score sheets), un-creative (dry, outdated graphics, paper-forms of research) which run counter to the entire mission of the organization. I think it is unfortunate that many leaders of the organization have never competed/coached.
What is your opinion of coaching in FPS?	I think there is great variance in ability and knowledge among coaches. Successful teams are generally the result of knowledgeable coaches, I'd like to see more formalized coaching training. Many kids are missing out on opportunities to compete at state and IC because their coach is not advanced enough to teach them well.
That, in itself, is an interesting question...	I would say that I think it's funny that you're still asking me to solve problems. This is what FPSPI is all about.
It would be incredible if FPSP could find a way to promote itself -- it does so much for students but isn't widely known	No response offered

Summary of Alumni Results

While their overall experience was positive, several of the alumni saw areas for possible improvement. The major area of criticism had to do with evaluation feedback. Concerns included subjectivity and cases of conflicting feedback. One writer observed: "I think that there is a better way for evaluators to grade booklets and leave more personalized criticism for the team. Perhaps

by including a comments sections rather than just checking lines that say 'you really targeted your KVP,' for example." Another wrote: "Evaluators often seemed to have very different ways of evaluating. It was disappointing to see very different results with the same booklet."

Recommendations were made to improve the website and the program's use of technology. That said, it is clear that to this group of alumni, their program participation had value over the long term, and that the program's goals have been met. Friendship have been established and maintained. Important life-long skills were acquired, skills that were confidently applied in both academic and work settings.

Section VIII: Cross-Sample Comparisons

We asked several key questions to more than one of the parent, student, coach, and Affiliate Director samples, permitting us directly to compare and contrast their responses.

Overall Level of Satisfaction

We begin by comparing each of the sample groups in relation to ***overall satisfaction with the FPSPI program*** this year. The table below presents the distribution and mean scores for each group, based on a 1-4 scale (1 = low, 2 = Limited, 3 = Moderate and 4 = high), and also converted to a percentage of overall satisfaction (based on dividing each average by 4 and expressing as a per cent). Not that the means for all samples are greater than 3.0, and the overall satisfaction percentages range from 82.8% to 94.0%, indicating a moderate to high level of overall satisfaction with the program among all response groups.

Group	Low	Limited	Moderate	High	Average	As % of 4
ADs	0	0	8	26	3.76	94.0
Coaches	2	15	82	121	3.46	86.5
Parents (Self)	5	20	79	91	3.31	82.8
Parents (Student)	5	12	87	118	3.43	85.8
Students	21	43	267	300	3.34	83.5

The AD sample had the highest rating of overall satisfaction with the program, followed by the coaches. While still very positive, the parents' own overall satisfaction was lower than either the ADs or the coaches. The students' overall level of satisfaction (also still greater than 3 out of 4) was the lowest of all the samples (and their parents viewed their children's overall satisfaction very close to its actual rating).

What Respondents Would Tell Others

We asked Affiliate Directors, coaches, students, and parents what they would tell someone else who asked them about FPSPI. We formulated a comprehensive set of key terms and phrases to use in categorizing the responses in each set. The following table presents all response categories that were given by at least 5% of the respondents in any one or more of the four sample groups. The first column presents the name of the response category. Then, each pair the remaining columns presents the count (Ct) of responses in that category within that sample and the percentage of that sample the count represents.

Responses	AD (N=27)		Coach (N=179)		Parent (N=192)		Student (N=563)	
	Ct	%	Ct	%	Ct	%	Ct	%
Excellent/great program/ highly recommend	17	63	92	51.4	70	36.5	131	23.3
Develops advanced thinking skills	6	22.2	63	35.2	25	13.0	66	11.7
Develops advanced researching skills	0	0.0	10	5.6	1	0.5	19	3.4
Develops advanced writing skills	0	0.0	14	7.8	5	2.6	18	3.2
Would recommend/ interesting/ decent/okay	3	11.1	11	6.2	41	21.4	99	17.6
Develops creativity skills	5	18.5	41	22.9	18	9.4	80	14.2
Develops problem-solving skills	6	22.2	47	26.3	24	12.5	170	30.2
Challenging/hard work	4	14.8	25	14.0	10	5.2	155	27.5
Kids enjoy/are passionate	1	3.7	3	1.7	11	5.7	27	4.8
Kids learn teamwork	2	7.4	29	16.2	14	7.3	45	8.0
Teaches important life skills	9	33.3	36	20.1	9	4.7	27	4.8
Topics are real and exciting	0	0.0	27	15.1	3	1.6	18	3.2
Students other than the gifted also need this	2	7.4	4	2.2	1	0.5	4	0.7
Fun program	1	3.7	5	2.8	6	3.1	205	36.4
Helps students learn to learn	2	7.4	1	0.6	4	2.1	0	0.0
Very few kids have fun, not always fun/ boring	0	0.0	1	0.6	0	0.0	34	6.0
Makes students think about world around them	4	14.8	27	15.1	25	13.0	132	23.5
Narrow audience/not for all kids	0	0.0	0	0.0	11	5.7	27	4.8
Children gain many skills	0	0.0	3	1.7	5	2.6	31	5.5

Cross-Sample Results for Goals By Program Component

We also compared ratings by the ADs, coaches, and students for several items relating to the extent to which each of the three main components of the program is meeting FPSPI's goals and purposes. These items included the primary FPSPI goals and purposes (see page 2, above), and several additional items deemed to be of potential importance when the evaluation surveys were constructed. For each component's comparisons, we include only the items that were rated by all three sample groups; these varied slightly among the three program components

Global Issues Problem Solving (GIPS). For GIPS, we compare responses by ADs, coaches, and students on 13 items, all of which were positive ratings. The AD's ratings ranged from 3.82 to 4.69 (on a five-point scale); coaches ranged from 3.68 to 4.39, and the students' ratings ranged from 3.48 to 4.14. All three groups agreed on the two highest ranked items ("complex issues shaping the future" and "teamwork and collaboration") and on the lowest two items ("applying FPS skills in other situations" and "listening and following directions").

| Item	AD	Coach	Student
A. Creative Thinking	4.29	4.12	3.99
B. Critical Thinking	4.50	4.23	3.87
C. Problem Solving Process	4.38	4.24	3.86
D. Teamwork and Collaboration	4.59	4.34	4.13
E. Leadership	4.15	3.94	3.90
F. Research and Inquiry	4.21	3.86	3.71
G. Communication & Presentation	4.09	3.85	3.81
H. Apply in other situations	3.91	3.70	3.48
I. Listening & Following Directions	3.82	3.68	3.54
J. Manage Time Effectively	4.21	3.94	3.74
K. Complex Issues Shaping Future	4.68	4.39	3.79
L. Active Interest in Future	4.53	4.20	4.14
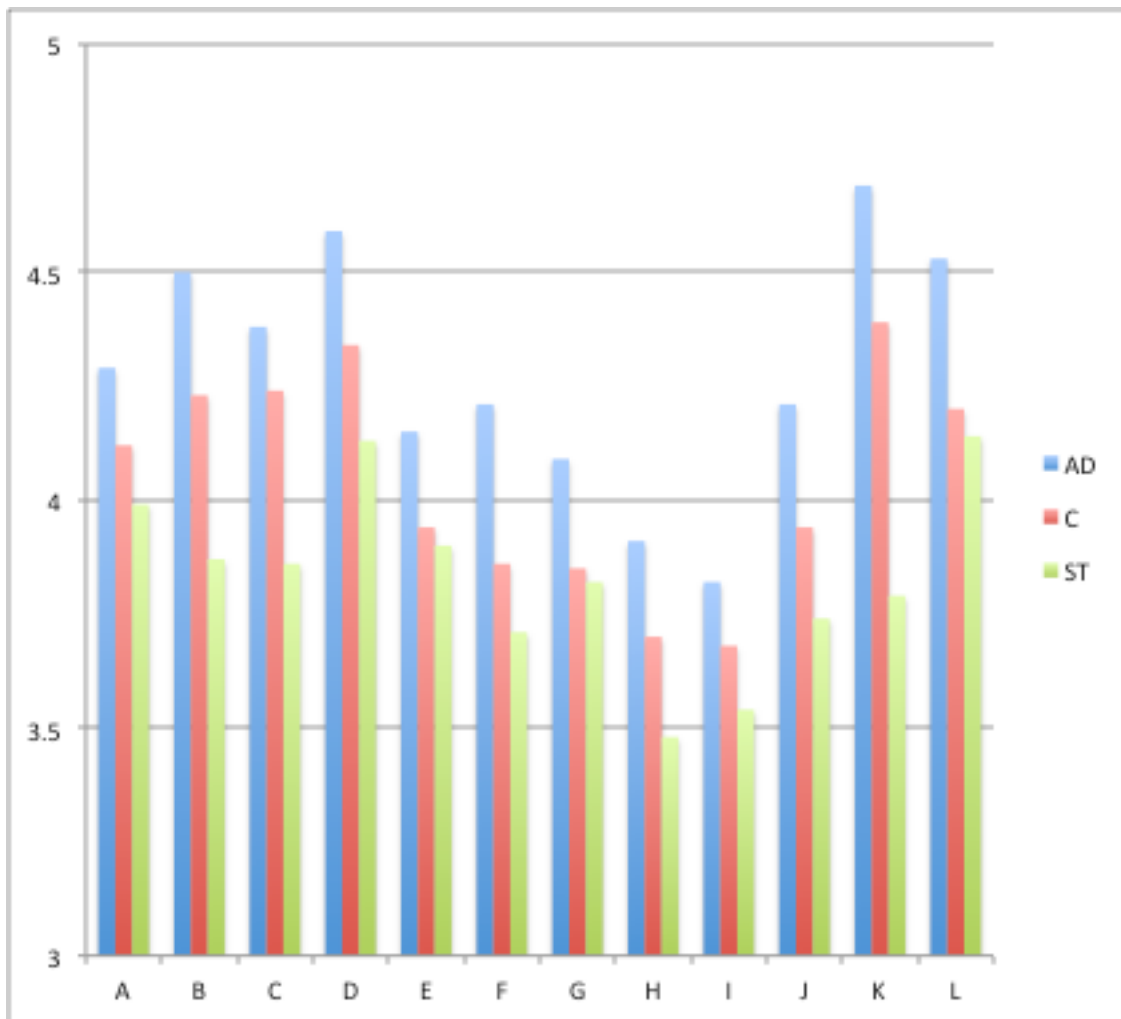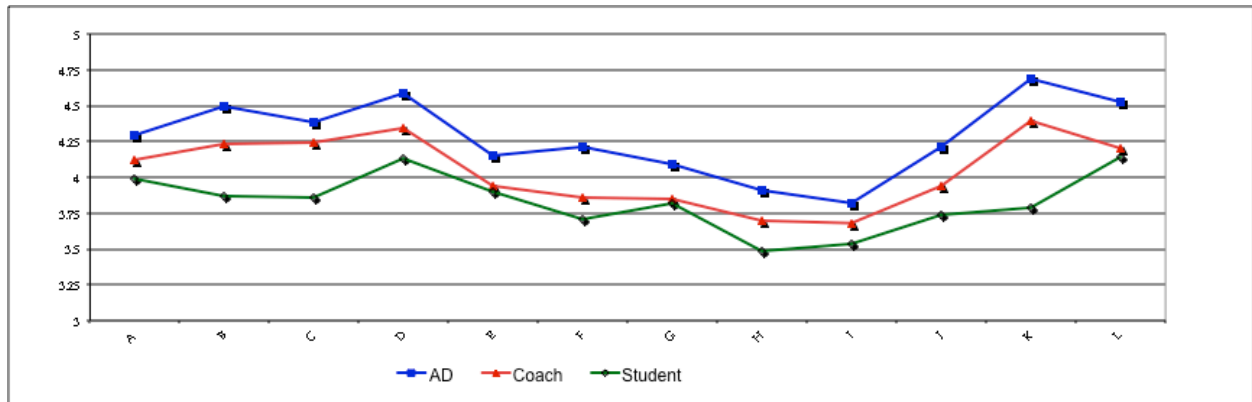
Community Problem Solving (CmPS). For CmPS, we compared responses by ADs,

coaches, and students on 13 items (except for students, for which there were 12 items); again, all

ratings positive: AD's ratings ranged from 3.97 to 4.70; coaches from 3.82 to 4.45, and students from 3.70 to 4.33. All three groups agreed on the highest ranked item ("teamwork and collaboration"), and ranked "leadership skills" in the highest four.

Item	AD	Coach	Student
A. Creative Thinking	4.33	4.00	3.96
B. Critical Thinking	4.33	4.15	4.07
C. Problem Solving Process	4.10	3.82	3.90
D. Teamwork and Collaboration	4.70	4.44	4.33
E. Leadership	4.63	4.45	3.97
F. Research and Inquiry	4.23	4.00	3.92
G. Communication & Presentation	4.57	4.39	3.90
H. Apply in other situations	4.57	4.06	3.70
I. Listening & Following Directions	4.07	4.15	3.80
J. Manage Time Effectively	4.37	4.18	3.74
K. Complex Issues Shaping Future	4.03	4.27	4.13
L. Active Interest in Future	3.97	4.27	---
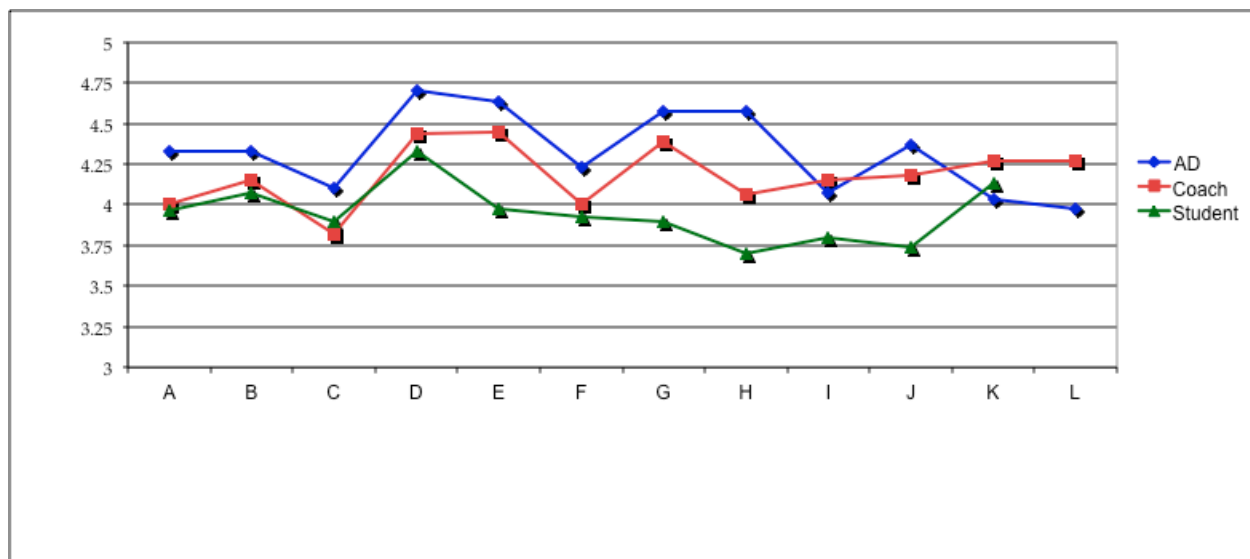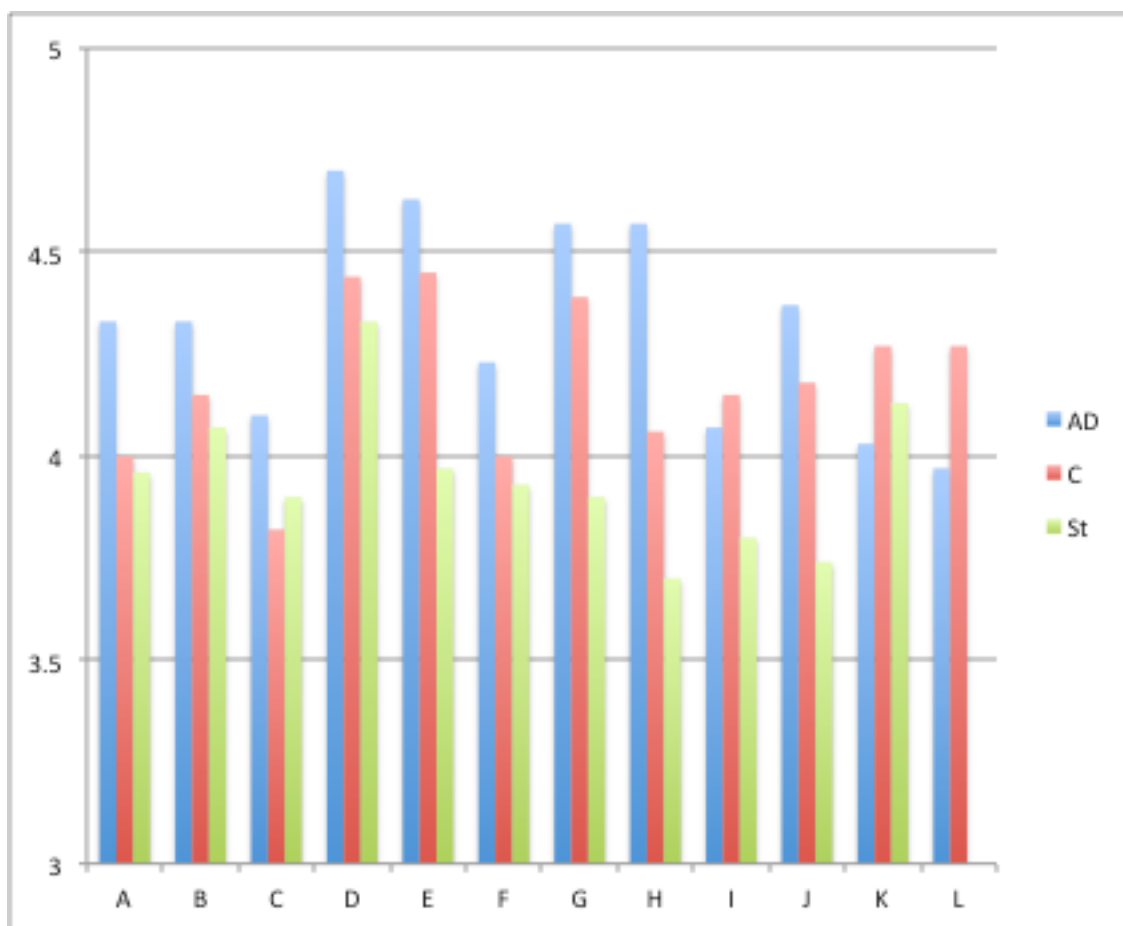
Scenario Writing (SW). For SW, we compared responses by ADs, coaches, and students on eight items; again, all the average ratings were positive: AD's ratings ranged from 3.30 to 4.27; coaches from 3.55 to 4.02, and students from 3.32 to 3.39. All three groups agreed on the highest ranked item ("active interest in the future", although tied for the coaches with "complex issues shaping the future"), and agreed in ranking "apply in other situations" lowest.

Item	AD	Coach	Student
Creative Thinking	4	3.96	3.92
Critical Thinking	3.93	3.96	3.55
Problem Solving Process	3.33	3.61	3.5
Research and Inquiry	3.7	3.67	3.69
Apply in other situations	3.3	3.55	3.32
Manage Time Effectively	3.43	3.86	3.45
Complex Issues Shaping Future	4.23	4.02	3.57
Active Interest in Future	4.27	4.02	3.99
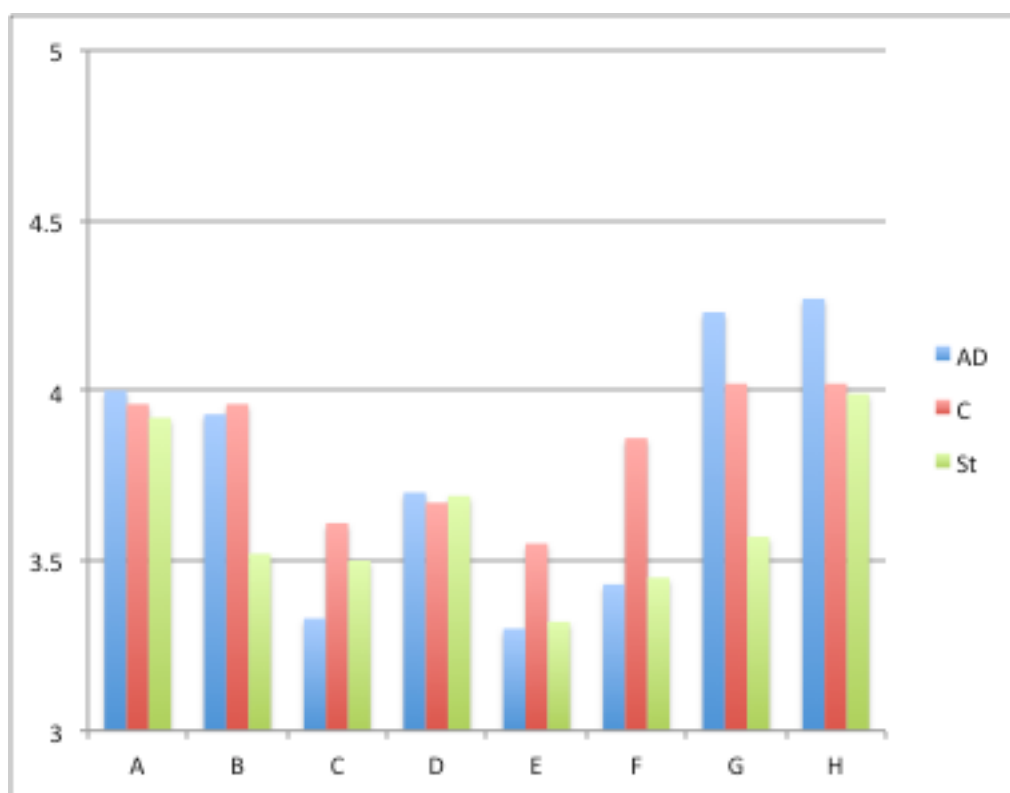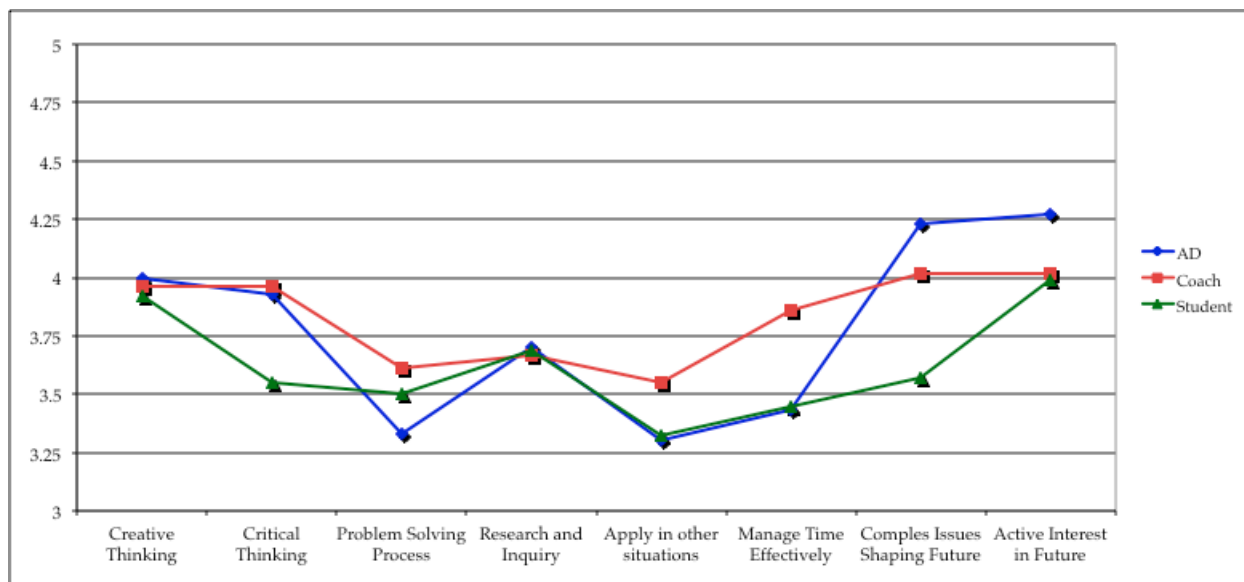
Other Cross-Sample Themes

We can also offer cross-sample comparisons for several other themes. These include: comparisons of responses by ADs, coaches, and students to questions regarding practice problems; responses by ADs and coaches regarding Qualifying Problems, and responses by ADs, coaches, and students to a group of items pertaining to Technology-related topics.

Practice Problems. The ADs, coaches, and students all responded to three questions about the program's Practice Problems. One question asked whether the Practice Problems have been interesting. The second item asked if they were challenging, and the third item asked about the helpfulness of evaluation guidelines and feedback. Respondents read each statement in a positively worded sentence, and responded using a 1-5 point Likert scale (1 = strongly disagree to 5 = strongly agree), so higher average responses indicated more positive responses.

Item	ADs	Coaches	Students
Interesting	4.21	4.09	3.99
Challenging	4.21	4.22	4.03
Evaluation	4.38	4.34	4.04

Qualifying Problem. At the time of year during which participants would respond to the evaluation survey, the groups would not have seen the current year's Qualifying Problem. Therefore, it did not seem appropriate to ask students about this element. Most ADs and coaches, however, had a general framework of experience on which to base their responses, so the questions were only included on those surveys. The items also asked about interest, challenge, and evaluation. The ADs' averages were 4.38, 4.44, and 4.38, respectively, and the coaches' averages for the same items were 4.21, 4.33, and 4.38. Thus, both response groups rated the Qualifying Problem very positively (averages >4).

Technology. The next theme for which we could make cross-sample comparisons involved several items pertaining to technology, social networking, and web-based experiences. We asked ADs, coaches, and students three questions about the program's website (www.fpspi.org): helpful information, attractiveness, and easy to navigate (with responses on a 1 – 5 scale, with 5 most positive). The responses to the three questions were positive (>3.00) among all three groups. In general, however, the students perceived attractiveness lower than either adult group (3.28 compared with 3.68 and 3.73). All three groups were quite similar in their ratings of useful information on the website (4.09 for ADs, 3.89 for coaches, and 3.85 for students). On ease of navigation or use, the students' average rating was slightly higher than the adults' (3.86 for students, 3.72 for coaches, and 3.44 for ADs), which may reflect the students' general "comfort level" with technology. The results of questions regarding "social networking sites" (such as Facebook.com) were mixed. The ADs' evaluation of the current use of these resources by the program was 2.62, whereas coaches rated it slightly higher (3.37). More than 60% of the students reported that they had social networking pages, but only 12% reported using them for activities related to FPS.

The last item relating to technology asked about opportunities to "do" FPS online. ADs and coaches were positive about the importance of efforts to move in this direction (ratings of 4.35 and 3.92, respectively). A small majority of students (56%) indicated that they "definitely" or "probably" would carry out their FPS work on line if they had the opportunity (and 44% said they probably or definitely would not.) We investigated whether the students' responses to this question were influenced by age group or by program components in which the students were participating. The percentages by age group were very similar for those students with the strongest positive reactions. Among students in the 9-11 age group, 15% said they "definitely"

would do it, compared with 16% of those in the 12-14 age range, and 14% of those ages 15 or older. For those who said they definitely would not do FPS on line, the rate was only 8% of 9-ll year-olds, compared with 14% of 12-14 ages, and 13% of those 15+.

By component, students who participated only in SW were more likely to report that they definitely would (21% versus 14% for GIPS and 12% for CmPS) or would *not* do FPS online (16% for SW, 14% for GIPS, and 10% for CmPS). For students who reported participating in two or more program components, the percentage of those who definitely would work on line increased (to percentages from 20% to 24% definitely yes).

Section IX: Comparisons of Program Components

In this Section we compare the evaluations of the three main program components (GIPS, CmPS, and SW) by the ADs, coaches, and students for the following eight items that relate to program goals and purposes: Creative Thinking, Critical Thinking, Problem Solving Process, Research and Inquiry, Complex Issues Shaping the Future, and Active Interest in the Future. In addition, we also present comparisons of the three program components for two additional areas for which data were available across the program components: Apply in other situations, and Manage Time Effectively. Some items (Listening and Following Directions, Teamwork and Collaboration, Leadership, Communication and Presentation) were not assessed for all components.

Creative Thinking. For the Creative Thinking item, there were no significant differences among

the groups' ratings of the three components.

| Component	AD	Coach	Student
GIPS	4.29	4.12	3.99
CmPS	4.33	4	3.96
Scenario	4	3.96	3.92
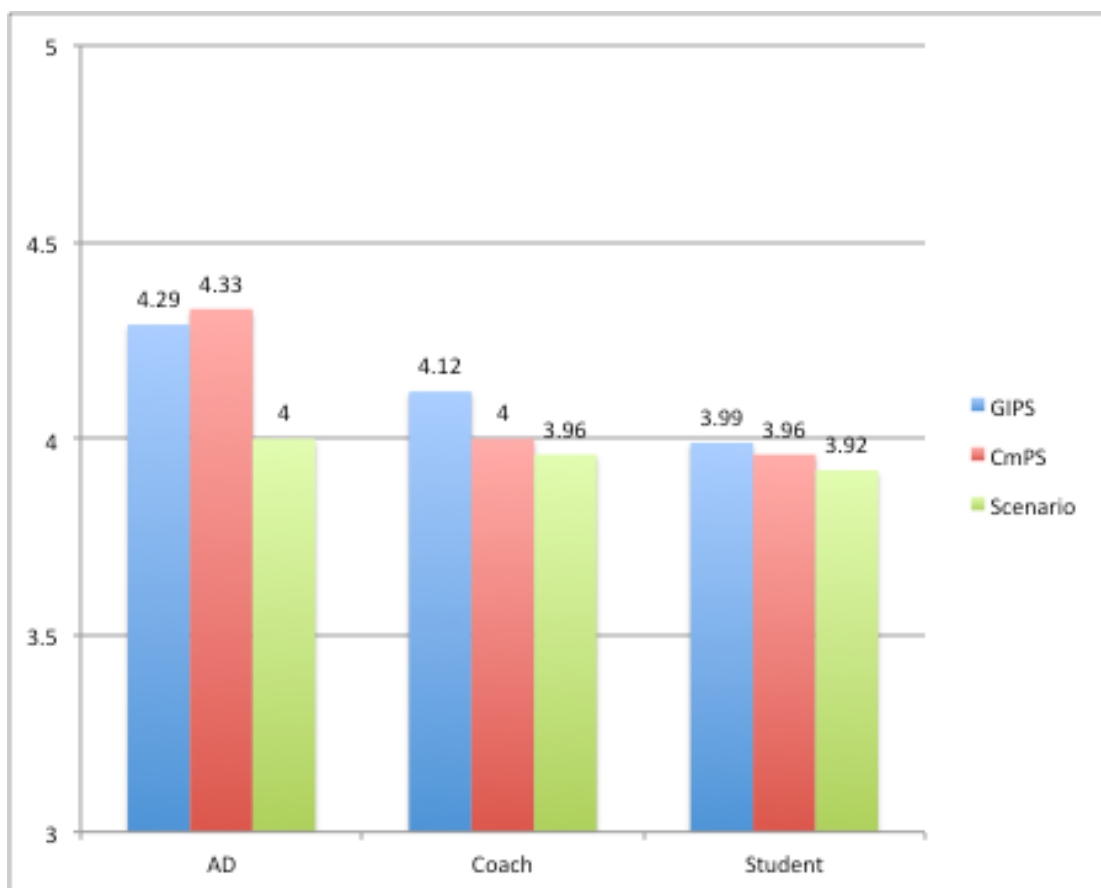
Critical Thinking. For the Critical Thinking item, based on the overall means (calculated across all three samples, adjusted to account for different sample sizes) the ratings for SW were significantly lower (p<.02) than the ratings for GIPS or for CmPS, but GIPS and CmPS were not significantly different from each other. (The students' ratings were also significantly lower than those of the adults.)

Component	AD	Coach	Student
GIPS	4.5	4.23	3.87
CmPS	4.33	4.15	4.07
Scenario	3.93	3.96	3.55

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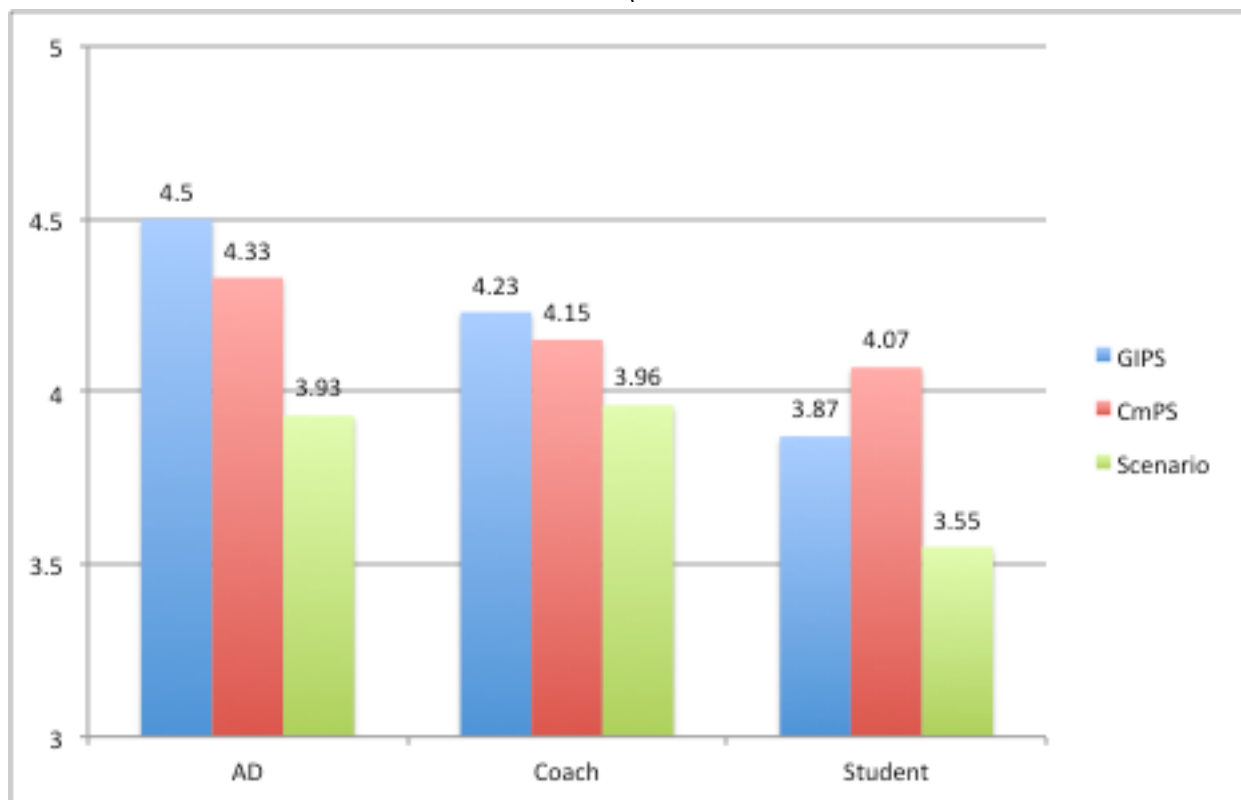
Problem Solving Process. For the Problem Solving skills item, based on the overall means (calculated across all three samples, adjusted to account for different sample sizes) the ratings for SW were again significantly lower than the ratings for GIPS or for CmPS, but GIPS and CmPS were not significantly different from each other.

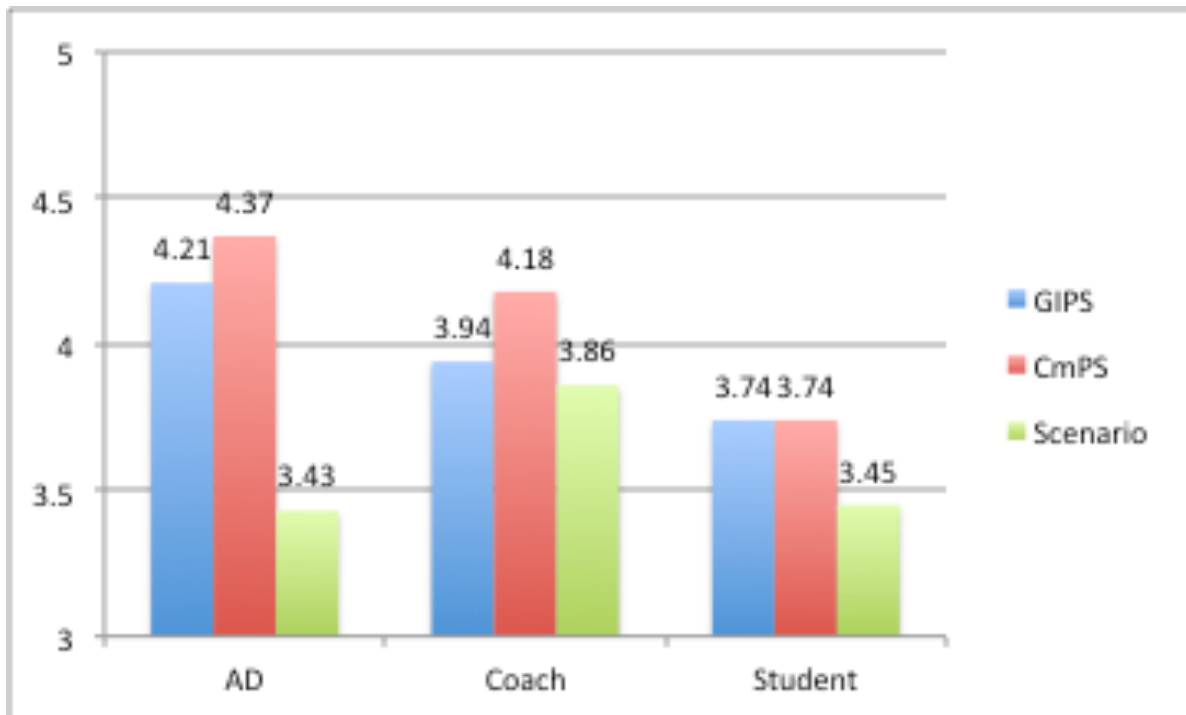| Component	AD	Coach	Student
GIPS	4.38	4.24	3.86
CmPS	4.1	3.82	3.9
Scenario	3.33	3.61	3.5
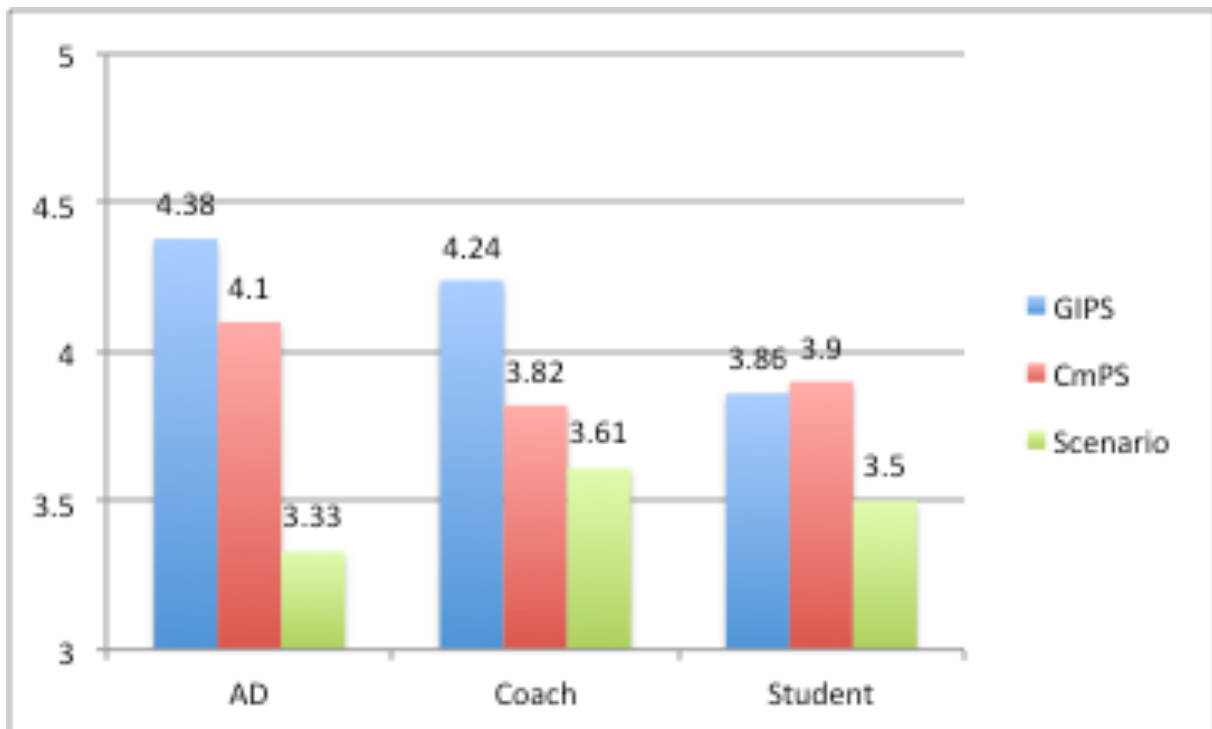
Research and Inquiry. For the Research and Inquiry skills item, based on the overall means (calculated across all three samples, adjusted to account for different sample sizes) the ratings for the groups differed significantly (p<.05). Based on the combined mean ratings across all three samples, the SW and GIPS components were not significantly different, but they were significantly lower than the ratings for CmPS.

Component	AD	Coach	Student
GIPS	4.21	3.86	3.71
CmPS	4.23	4	3.92
Scenario	3.7	3.67	3.69
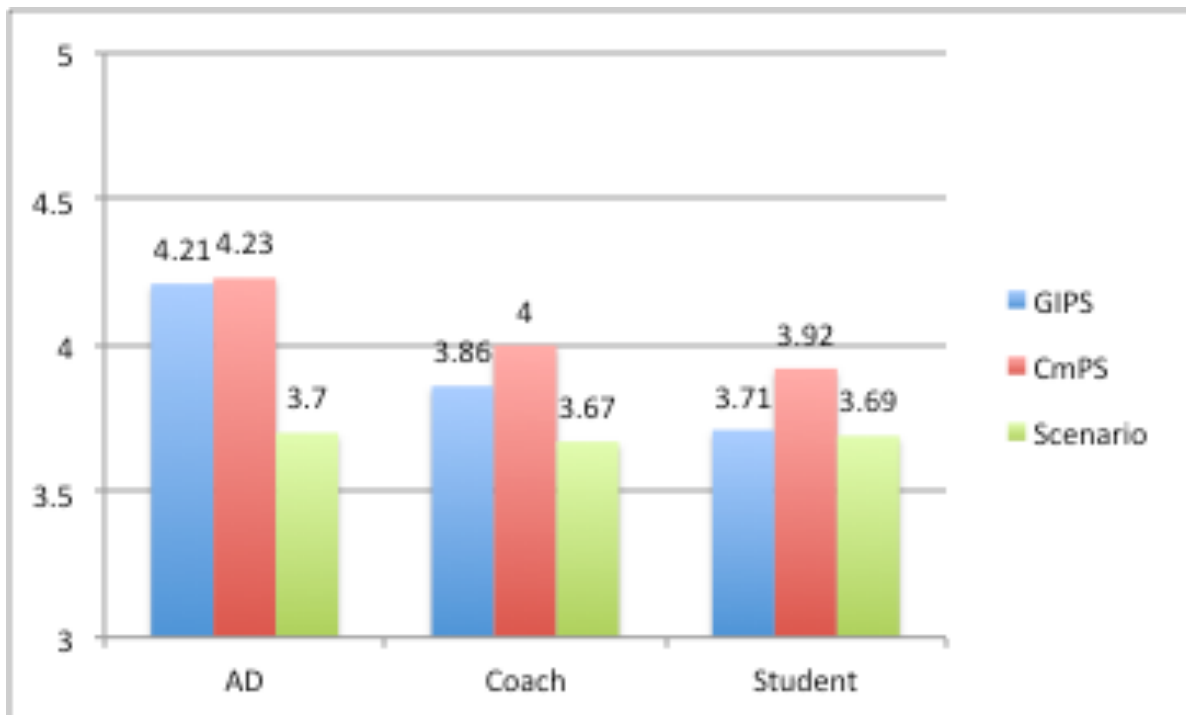
Apply in other situations. For this item, based on the overall means (calculated across all three samples, adjusted to account for different sample sizes) the ratings for the groups differed significantly (p<.05). The pattern was the same as for the previous item: the SW and GIPS components were not significantly different, but they were significantly lower than the ratings for CmPS.

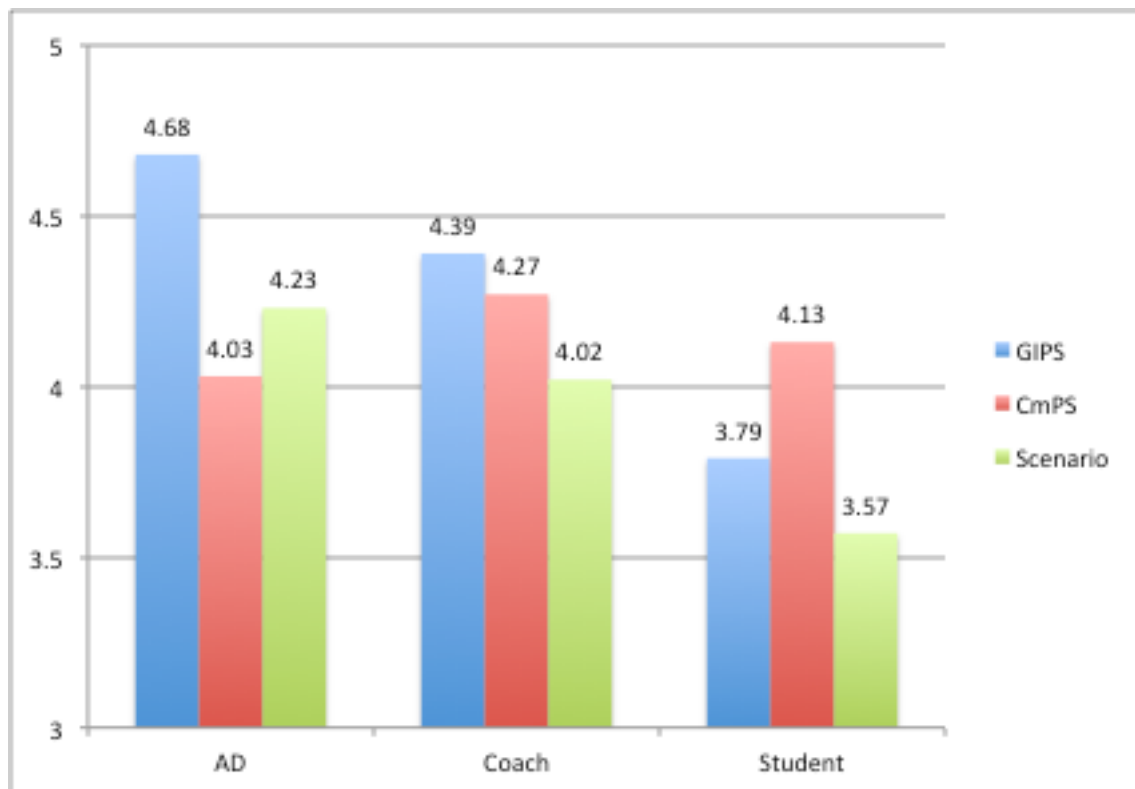| Component	AD	Coach	Student
GIPS	3.91	3.7	3.48
CmPS	4.57	4.06	3.7
Scenario	3.3	3.55	3.32
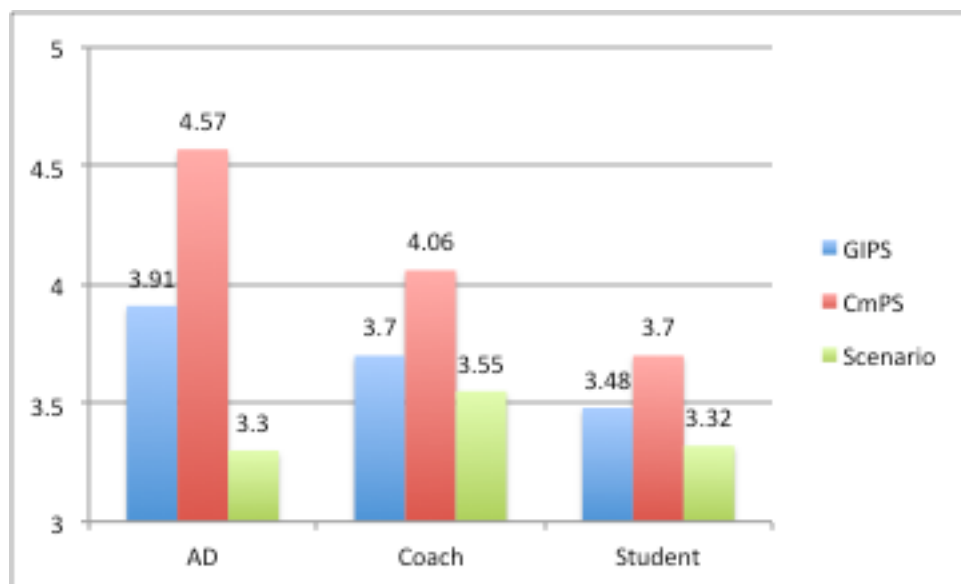
Manage Time Effectively. For the Time Management skills item, based on the overall means (calculated across all three samples, adjusted to account for different sample sizes) the differences among the ratings for all three groups were significant (p<.05). The ratings for the CmPS and GIPS components did not differ significantly from each other, but were significantly higher than the ratings for the SW component.

| Component	AD	Coach	Student
GIPS	4.21	3.94	3.74
CmPS	4.37	4.18	3.74
Scenario	3.43	3.86	3.45

Complex Issues Shaping the Future. There were no significant differences among the three components on this item.

Component	AD	Coach	Student
GIPS	4.68	4.39	3.79
CmPS	4.03	4.27	4.13
Scenario	4.23	4.02	3.57

Active Interest in the Future. There were no significant differences among the three components on this item. (This item was omitted in error from the CmPS section of the student survey.)

Component	AD	Coach	Student
GIPS	4.53	4.2	4.14
CmPS	3.97	4.27	(not rated)
Scenario	4.27	4.02	3.99
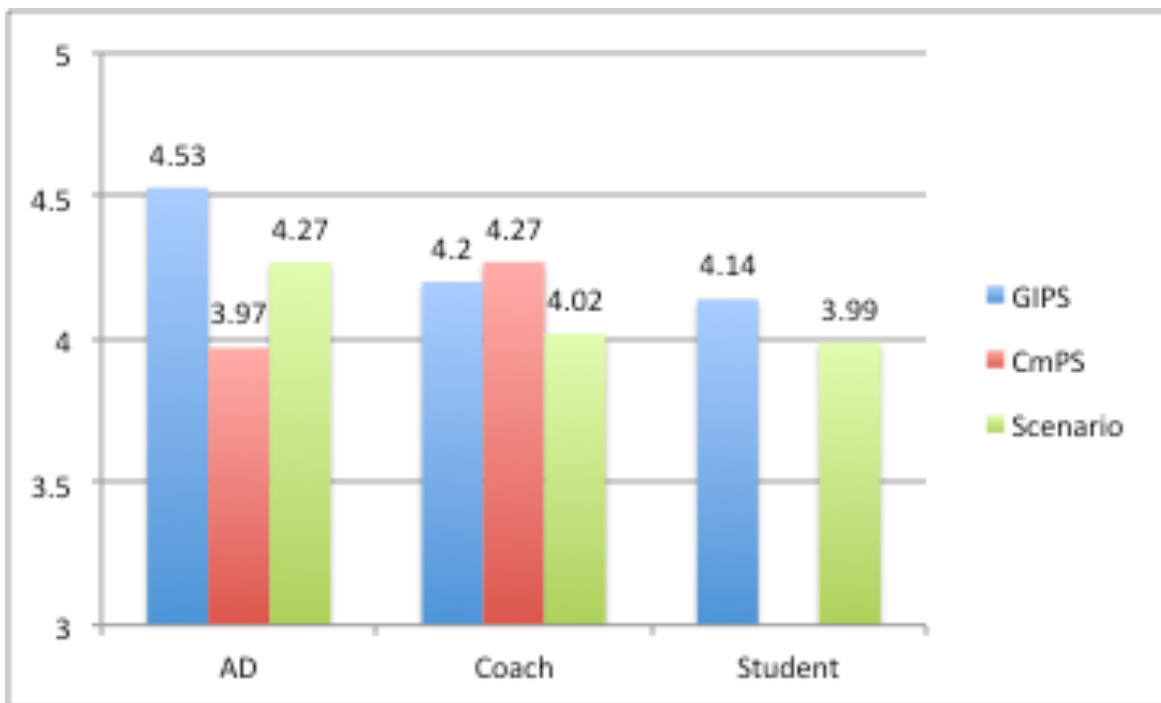
Section X: Discussion and Recommendations

In this Section we discuss the results presented in Sections III through IX and their implications, and we close the report by presenting our recommendations based on these data. The project addressed three main evaluation questions, which were presented in Section I and might be summarized by the key phrases *doing what the program purports to do, strengths and limitations,* and *impact.* These questions guided us in organizing our discussion of the results and in framing our recommendations.

Does the Program Do What It Purports to Do?

The key data bearing on the question of whether the program is doing what it purports to do come from responses regarding overall satisfaction with the program. This issue was addressed directly through closed-ended survey questions as well as indirectly through several open-ended questions. Taken together, the data from our surveys document broad and strong overall satisfaction with the FPSPI program and perceptions that it serves important purposes effectively for its participants— and is doing what it purports to do.

A closed-ended question addressed program satisfaction directly among ADs, coaches, students, parents (reporting their own satisfaction), and parent judgments of their children's satisfaction. In each case, average ratings exceeded 3.00 (out of a maximum possible 4.00 rating); results ranged from 3.31 to 3.76. This reflects an overall percentage of satisfaction ranging from 82.8% to 94%.

Responses to an open-ended question regarding what respondents would tell other people about the program also indicated positive support for the value and benefits of the program. Comments describing the program as "excellent" or "great" and recommending it to others (or highly recommending it) were the most frequent responses to this question among ADs, coaches,

and parents, and also ranked high among students (for whom *fun* was the most frequently given response). Comments regarding *teaching important life skills* were also given frequently by both ADs and coaches, along with *developing advanced thinking skills* and *developing problem-solving skills and creativity*. Students also emphasized that they would tell others that the program develops *problem-solving skills* and that it is *challenging and involves hard work.*

The small group of alumni respondents also rated their experience with the program positively. This was reflected both in the closed, and open-ended items. Respondents noted personal relationship, learning to think creatively and critically, learning how to choose the best solution, learning a specific process for problem solving, and opportunities to improve their research and writing skills as important changes that program participation brought to their lives.

Both ADs and coaches reported a sense of personal satisfaction about their roles in the program, and reported that their participation was a valuable learning experience for themselves and the students. The adults involved in the program also reported a mostly positive experience working with other adults in the program. The majority of parents had positive feelings about the participation of their children in the program.

Clearly, then, respondents to the evaluation surveys perceived FPSPI as providing a positive and important set of experiences for students and adults. Their responses supported the conclusion that FPSPI is successfully doing what it purports to do and offers a variety of well-received services and activities to its participants .

What Are the Program's Strengths?

In this section, we will consider the specific strengths of FPSPI as reported by the survey respondents.

In general, both the current participants and the alumni respondents reported that the program's goals, rules, and procedures are clear, easy to understand, and fair. The feedback and evaluation participants received at Affiliate Bowls and IC, as well as those events themselves, received praise as program strengths. Affiliate Directors, coaches, students, and alumni offered comments as to the value in traveling to and competing in these events, as well as the overall organization of the events themselves. Several students and coaches also noted that FPS is fun! Overall evaluations of practice problems, qualifying problems, and Bowl problems were all positive (although open-ended responses raised some questions regarding topics and specific age group relevance).

In relation to technology, the responses of all groups acknowledged that the program has begun taking action to expand and enhance applications of technology in a variety of ways, and emphasized the importance and value of future efforts in those areas.

Each of the program's major components, Global Issues Problem Solving (GIPS), Community Problem Solving (CmPS), and Scenario Writing (SW), was also viewed positively by all respondent groups.

GIPS. The major strengths of the GIPS component were: teamwork and collaboration; learning and applying a structured approach to creative thinking, critical thinking, and problem solving; and, developing research, communication, and other important academic and life skills. Coaches also emphasized the importance and value of engaging students in futuristic topics and issues. The strengths might best be summed up in the statement of one student who had participated in FPS for more than five years: "FPS is a problem-solving program consisting of six key steps: identifying challenges, selecting a main problem, generating solutions, creating criteria, evaluating solutions, and developing a plan of action. It encourages creative and global

thinking, and enforces key techniques for problem solving that are essential to everyday life. As a competitive program, it drives you to constantly learn and progress; as an international program, it broadens your perspective of the world as well as allowing you to meet people from various states and nations."

CmPS. Both the students and coaches with direct CmPS experience noted some specific strengths of that component. CmPS students have a real impact on their communities. They develop community awareness and engage in authentic service that truly makes a difference. Students realize that this goes beyond trivial routine service projects often associated with required service learning programs. Students also assume fully the responsibilities associated with community service at this level. While one coach was concerned that "evaluators treated CmPSers more like adults than kids," the students' responses suggested that they saw that positively, and were encouraged by being treated seriously by the community and their FPSPI evaluators.

SW. The SW component also adds unique strength to the overall FPSPI offerings. Beyond the benefits of strengthening the writing and communication skills of participating students, this component offers those students who thrive on focused individual work an opportunity to work alone and still be part of FPS. It offers these students an opportunity to clarify roles and has the potential to differentiate between external and internal processers. Students themselves see this component as providing them opportunities for a degree of openness and creative freedom that they do not experience in their regular school programs. They also report receiving valuable feedback that helps them to break away from pre-formed writing templates and to do what real writers do. The Scenario Writing component models talent development opportunities that we want students to have, and engages them in real-world

application of their own strengths, interests, and passion for writing. It allows students to opt in based on their own interests without having to have been formally identified as "gifted" writers.

All three components were also viewed positively by a majority of the small group of alumni who responded to questions about those components. With responses ranging from "Okay" to "Great," respondents found the problems presented by the components to be both interesting and challenging.

A series of closed-ended questions addressed a number of specific program goals. The results for these items, across all program components, indicate that all three program components are above average or better in meeting the program's core goals. For the GIPS component, responses by ADs, coaches, and students all rated two goal statements highest: *Complex Issues Shaping the Future,* and *Teamwork and Collaboration.* For the CmPS component, ADs, coaches, and students all ranked *Teamwork and Collaboration* in the top two highest-ranked statements, and both ADs and coaches ranked *Leadership* as first or second. Students ranked as second *Feeling that I can make a difference in shaping the future,* perhaps having a more immediate view of the future of their community than a long-range global understanding of the item. For SW, statements regarding the future were in the highest ranked three for all respondents. Students also rated "developing better writing skills" as their second-highest item.

For the GIPS and CmPS components, ADs, coaches, and students all rated all of the goal statements at or greater than 3.5 (on a 5-point scale). For SW, the coaches rated all goal items greater than or equal to 3.5, and all groups rated all items greater than 3.0. The results of the evaluation affirm that the program's participants and leaders perceive FPSPI as effectively meeting its stated goals.

What Are the Program's Limitations and Areas for Improvement?

Each of the respondent groups noted some limitations and areas of concern that, if addressed, might contribute to improving FPSPI or one of its components. It is important to be clear about the context for this section. These areas are concerns and possible areas of improvement within a program for which the overall evaluation results are very positive. That is, they are "opportunities to improve a strong, positive program," rather than critical shortcomings that must be addressed in order to attain a basic level of satisfactory performance. They are concerned with enhancing a positive program, not "fixing a broken one." In addition, be aware that these points reflect a summary of the responses made by the ADs, coaches, students, parents, and alumni; unless otherwise noted, they are not the professional opinions or judgments of the evaluation team. They summarize what the respondents told us, and as such, we cannot judge the "truth" or objective "correctness" of any of their perceptions.

The ongoing growth of the program was a concern for ADs and coaches. This concern was divided into two areas. First, there was a concern about the effectiveness of marketing FPSPI, building knowledge and awareness of the program in order to strengthen support and stimulate growth. Respondents recognized the challenges in making others aware of the value and benefits of the program and the need for expanded and sustained publicity or marketing efforts The second point concerning growth dealt with the recruitment and retention of adult volunteers, teams, and team members. Overall, respondents suggested that FPSPI needs to expand and enhance efforts to strengthen, support, and retain participants (both adults and students) as well as to attract new participants.

Adult respondents also agreed about the stress that comes with participation in FPSPI in terms of time and multiple demands. This stress was also aligned with the need for more training

and ongoing support of coaches, especially new coaches. The stress factors also relate, not only to the time and tasks needed to carry out the program itself, and to recruit and promote the program, but also to managing those responsibilities along with other responsibilities of work, home, and family.

Another factor adding to the stress of holding leadership positions in FPSPI (as in many non-profit organizations) is funding. The need to fund raise, and the shortage of resources to allow the program to function well and to support the travel associated with competition was a concern of ADs, coaches parents, alumni and some students. Although this is a widespread concern among educational programs in difficult economic times, it is compounded by the difficult personal economic circumstances being faced by many families. Many respondents highlighted the need to seek external support or sponsorships for operational support as well as for scholarships to enable economically challenged students or families to participate in the program or attend Affiliate Bowls or IC.

Questions were also raised as to the efficiency of communications and email flow at, between, and among various levels of the program, as well as the flow of communications between the program and parents of participating students. Some parents told us that the first they knew that their child was involved in FPS was when they received the survey.

Technology-related concerns were another perceived area in which improvements are needed. There is a perception among those surveyed that resources offered online for teams, and opportunities to do FPS on line are too limited. One AD noted: "I think we can use the value of the network more." A coach pointed out: "We need to come up with some way for student team work to be uploaded to a site so evaluators can do the work on-line, and get rapid feedback to the coaches and teams." Other coaches also noted the need for more technological support, and a

greater use of technology in general. The use of social networking, its role and use needs also to be clarified and possibly expanded (although there was divided response about the role of social networking in the program, as opposed to for personal social communication). There was support for expanding on-line opportunities to "do" FPS, although this also needs careful study and review. The appeal of online interactive participation may vary in relation to the age of participants, the nature of the programming offered, and the program components. The FPSPI website and its design were viewed by several respondents as needing improvement; these areas, and especially the site's attractiveness and usefulness, had the least positive results on the survey. Among the alumni group, a large majority reported using Facebook or other social media platforms (or multiple platforms). They either do, or would like to stay in touch with other alumni using social media. Thirty alumni respondents reported visiting the FPSPI website for various reasons, most often in their capacity as a program volunteer. One member of the alumni group wrote: "I'm also an evaluator. I like checking in to see what topics they're doing, etc. Also, it'd be fun if they could put up some of the skits from internationals on there so we could see them."

There were several other suggestions from the alumni group relating to possible improvements in the attractiveness and value of the website. While 23 either agreed or strongly agreed that the site was useful, there were 13 suggestions to as to how it might be improved. These suggestions focused largely on calls for a new design that would provide a newer look and more clarity. Others suggested more links, more information, and more opportunities to interact with others. One response covered several of these areas: "Design. Better search feature. Better ways to interact with each other about current topics. Ways to interact with members and alumni on projects relating to past or future projects outside of the direct FPS program."

While IC received very positive comments overall from adults and students alike, limitations were noted in terms of location, the nature of tours and recreation scheduling, and again the funding needed to get students to IC. AD respondents noted limitations of staffing at IC, not in terms of the quality of the efforts being made by FPSPI staff (which were consistently praised), but in terms of managing the workload with the number of individuals available and the likely need for expansion of staffing for the event.

Coaches, students and parents reported value in the student evaluation and feedback aspects at various levels of competition; however, this was also noted as an area of concern. Limitations noted in this area included: turn around time to receive feedback on GIPS and Scenario submissions, lack of consistency among evaluators, lack of training, lack of transparency, and perceived bias. The depth and extent of feedback was also a concern. One GIPS participant wished that there could be "more feedback on practice problems" and several wished for "better feedback." A CmPS team member wrote: "There should be a more effective way to grade teamwork to make sure everyone participates actively. Sometimes the impact on society can't be whittled down to mere words. One has to be there to see and feel it." And, one young scenario writer wrote: "The time period is a little too dragged out, and we get comments on preliminary evaluation only a couple of months before the deadline." Among the alumni there was some criticism as to the helpfulness of evaluator feedback for each of the three components. Two respondents considered feedback on the GIPS practice problems weak. One held the same opinion on qualifying problem feedback. Three respondents gave the same rating on CmPS evaluator feedback, while on Scenario Writing two found the feedback to be weak and one found it to be poor, an area needing major change. This point is reinforced by responses to another

question in which four considered "learning to receive and use feedback from evaluators" of little or no importance to their overall FPSPI experience.

In more specific areas some GIPS coaches were concerned that the topics they were given were not always age appropriate for the junior level. Others found that the topics are uneven from year to year. This can lead to confusion of expectations. Also, the topics are sometimes worded in ways that are not always helpful. Among the students' comments was a call for more interesting, relevant and realistic topics and future scenes. Some CmPS coaches found the handbook to be out-of-date. Students commented on the addendum and paperwork as being drawbacks to CmPS. The biggest limitation noted by Scenario Writing coaches was the turn around time for feedback, as noted above. Students involved in this component, on the other hand, were concerned with the limits on the word count, the clarity of the guidelines and directions, and the limited breadth of topics and choices.

The evaluation team also noted both in the data and as a result of trying to gather that data that FPSPI lacks a standardized system of participant data gathering and management. Current practices lack structural uniformity and consistency across the program. Other inconsistencies include management processes and program procedures such as scheduling and deadlines across affiliates. There also seems to be no clear or uniform approach to the role and deployment of the problem solving process within each of the three components. This includes a lack of uniformity in terminology and understanding of CPS that may lead to breakdowns in communications among those engaged in each of the three components.

Finally, a trend that we noted in the data indicates a possible limitation in the degree of satisfaction with the program experienced by parents and students. While the overall satisfaction among all groups was positive, it was highest among ADs, next among the coaches, and lowest

among students and parents. Parents who reported that students would not be continuing in their participation often noted that it was because of the execution of the program in the local setting, not because of the program itself. This may relate to the importance of and need for training and support for coaches. It may also relate to possible differences in attitudes and responses of students who participate in the program voluntarily, based on their interest and enthusiasm, versus students who are required to participate in one or more components as a school requirement. In addition, there was no evidence that the program is involved in systematic efforts to build parent awareness, to empower or enable effective relationships with parents, or to engage parents as partners in advocacy and publicity for the program. Communications with parents appears to be limited, as is their involvement. Many parents reported not knowing enough about the program to tell others about it.

What Evidence Was There of Program Impact?

The ADs, coaches, parents, and alumni all provided evidence indicating positive impact of FPSPI in a variety of ways. Many adults wrote about the value and personal satisfaction of observing students' growth and accomplishments and their pride in the outstanding efforts of the participating students; they often described the program's impact on students with high praise, and commented also on their participation's impact on them as adults as well. One coach wrote, for example, that "being an FPS coach was the most rewarding volunteer work I've ever done." The adult respondents were passionate about the program and its value as a unique educational offering to students in their responses to open-ended questions. They appreciated the varied ways that FPSPI responds to student strengths and talents, recognizing and dealing positively with student differences. They emphasized the importance and value of providing international or cross-cultural experiences for students and travel experiences, the opportunities the program

provides for young people to learn and apply a structured process for problem solving, and challenging young people to develop a futuristic outlook and to be forward-looking in addressing global challenges and issues. One respondent wrote, for example, "I still have students I coached ten years ago coming back to thank me for involving them in FPS and telling me that they use the process all the time." A parent noted that a powerful example of the impact of the program came from "hearing my child use FPS terminology in 'regular' conversations." Many of the alumni respondents noted the ongoing impact of their FPS experiences in personal, academic, and career settings (see pp. 91-94, above).

Based on the open-ended comments offered by each of the groups surveyed, we noted wide agreement that the program's benefits extend well beyond the stated program goals. Among the extended benefits, respondents emphasized a variety of life skills including: time management, self-direction, self-management, leadership, socialization skills, the use of technology, a broader academic experience that is both challenging and interesting, and (particularly among those involved in Community Problem Solving), community service.

Program participation had a positive impact on their academic life, work, and personal lives. One alumnus wrote: " I have solid, supportive friends from FPS, and I am able to rationally solve a problem due to the FPS training." Another added: "I currently work in Public Policy, which requires me to think about the impact of particular scenarios, identify problems, and develop possible solutions that address those issues. Essentially, I use the FPS process on a daily basis to address modern day issues." The alumni felt that they had learned confidence when dealing with problems and using the CPS or six-step process. Their efforts in FPS improved their people skills, their ability to plan and manage their time, and their leadership skills. The program helped them as they made their way through high school and to prepare for college and work.

One respondent summed this view up as follows: "FPS was the cornerstone to my academic experience. It connected every subject in school in a way that was mind opening, challenging, and rewarding. I believe all schools should offer this program as an option."

It is not surprising, given the level of satisfaction with the program expressed through this survey, that this group of alumni remain, for the most part, active participants in the program, or at least make some effort to keep up with program activities. Thirty-eight members of this group serve as evaluators. Others serve as coaches, writers, Affiliate Directors, and/or volunteer in other ways. Forty-two of them still keep in contact with other FPS alumni. For most of the members of this group their FPS participation laid the foundation for lifelong friendships that are maintained through continued involvement in the program, but also socially, both in person and through social media. One respondent wrote: "The friends I met in FPS are my best group of friends from high school. When we're away, we keep in regular contact…. Each time we come back home for vacation, we meet for a movie."

We conclude, therefore, that the respondents provided evidence (albeit informal, anecdotal evidence) that participation in FPSPI has had positive impact on young people— in personal relationships, in subsequent academic experiences, and in their work or career experiences.

Recommendations

In this Section, we present 30 recommendations, in nine broad categories. We based these on our analysis and synthesis of the data from all respondent groups (ADs, coaches, students, parents, and alumni). However, it will be the task of those who receive and review this report— the FPSPI staff and leadership— to seek to understand the respondents' perceptions and their implications for action. In important ways, your first task is one of listening or receiving the data,

to hear the results rather than to determine whether they are "right" or "wrong" in their views. Then, based on your depth of knowledge and experience, your most important task will be to identify, prioritize, and take action on the key learning points that emerge from the data. Our recommendations can point the way to possible action, but the most powerful results must come from your careful reading and study of the data.

Finally, note that the presentation of the recommendations does not reflect any priority or expression of importance in our view. Again, it is your involvement and experience in the program that will enable you to prioritize any needed actions. We present these recommendations in the order in which we identified them as the evaluation team collectively reviewed and discussed the data.

A. Address the program's needs in relation to funding, marketing, and publicity.

A1. Explore potential avenues or sources for grants or sponsorships to strengthen the program-wide base of operational support. (This might involve, for example, seeking the assistance and support of a professional fund-raiser, grant writer, and/or development professional.)

A2. Seek specific support and funding for scholarships to enhance the ability of economically limited individuals or groups to participate fully in the program.

A3. Seek and make use of professional marketing and publicity professionals to expand awareness of the program and its benefits.

B. Expand the view and presentation of the program's goals and unique elements as a foundation for program development as well as a tool for marketing and promotion.

B1. Extend or broaden goal statements to reflect a full range of program benefits. The data from this evaluation suggest that the program's strengths and benefits extend beyond the

goals currently published by the program. We recommend that the additional benefits identified by the results of the evaluation be included in FPSPI goals going forward; such supporting data can also be used in marketing the program and will support the suggestions found among the open-ended responses that the program should reach out to broaden awareness of and participation in FPSPI.

B2. Draw upon contemporary recognition of the importance of creativity and innovation to build awareness of the powerful process foundation of the program. Many of the ADs and coaches who responded are aware of the positive academic nature and value of the program, but some perceive that the program is not "flashy." Keep in mind that it is a myth that all creativity is "flashy" and lacks substance. Current national and international perspectives on the importance of personal and organizational creativity and innovation— in the context of a rigorous and well-researched process framework— can serve as an effective foundation for promoting the program. In addition, such initiatives as "21st Century thinking," and "high standards" (which you have already referenced but were not widely cited by respondents) can add support for the rationale for FPSPI.

B3. Highlight the unique elements, strengths, and potential appeal of each program component. All of the respondent groups had recommendations that dealt with expanding awareness of the program. We recommend that this expanded awareness move beyond "generic awareness of FPS," articulating and highlighting the unique nature and strengths offered by each of the three components. Each component contributes different positive experiences, leading to student growth in varied ways for different students. Restricting the marketing of FPSPI to focus primarily on GIPS (or any other component alone) cannot convey the breadth and depth of opportunities available to students. Explore new

and expanded ways to maximize the individual impact and value of each component, and communicate the results of participation much more widely.

B4. Develop a clear and uniform approach to the presentation and language of the problem solving process and how it is to be employed in each of the three components. Especially in SW, the potential applicability of a structured problem solving process was not widely recognized. In CmPS, it is also important to convey (and apply) a problem-solving approach that helps differentiate this component from other "service learning" projects. Creative and critical thinking and problem solving were widely recognized in this evaluation as major benefits of FPSPI; it is important to be explicit about their role and use in each component.

B5. Consider conducting or supporting experimental research on the specific impact or effectiveness of deliberate instruction in process methods and tools, within and among program components and age groups. The present evaluation study provides survey data; it will strengthen the arguments that can be made in support of the program's value and importance to have direct evidence of the impact of the program on student performance.

B6. Seek ways to expand awareness and "connections" between FPSPI and broadened conceptions of giftedness and talent development. Many respondents recognized the important contribution of FPSPI to meeting the needs of high-ability students as thinkers and problem-solvers. Beyond viewing FPSPI only in the traditional context of "academic giftedness," seek ways to build awareness of the ways in which the program provides a vehicle for many students to express and apply a variety of creative strengths and talents in many worthwhile areas. There appear to be numerous opportunities to do this (e.g.,

SW in relation to talent development in writing; do other specific talent areas also find outlets in any FPSPI components?).

C. Examine carefully the potential tension between required and voluntary participation in the program.

C1. Investigate the relationship between voluntary participation and student responses to the program. Students' survey responses reflected diversity around the term "fun." For many students, this was one of the major strengths of the program. For a smaller (but not negligible) number, however, a major concern was that the program was not fun. This division of responses was not limited to any age group or program component. In addition, as we have noted elsewhere, the overall program evaluations by students, although positive, were lower than the overall ratings by coaches or ADs (and the parents also perceived their children's satisfaction, and their own, as somewhat lower than either ADs or coaches). We did not ask in the student survey whether their participation was voluntary (i.e., they were in the program because they wanted to be) or required (i.e., it was part of a class or program requirement at school). Experience with the program suggests to us that this may be an important variable to study in greater detail in the future. Some of the strengths that adults recognize in the program may be limiting to students. The results of such inquiry might lead in a number of productive directions, including, for example, seeking ways to enhance the engagement of students in required programs, or identifying guidelines for linking student characteristics and program options effectively (e.g., students who have little interest in or talent for writing may not be well-suited for the SW component).

D. Investigate the need for training, support, and mentoring for coaches and other program personnel.

D1. Data from ADs and coaches suggested the possible need for increased training opportunities and support for coaches; parents' concerns about "unevenness" of experiences their children have had (and the potential consequences of poor experiences) lends support to this as an area to investigate. Some comments suggested exploring a variety of media for the development and delivery of training programs.

D2. Create an online source for mentors who could work with new coaches on an ongoing basis. Providing print or online materials or engaging new coaches in a single workshop or program may be insufficient to ensure effective performance over time. Consider using technology in innovative ways to address new coaches' ongoing needs and concerns.

D3 Develop a system of advisors available to work with schools on issues such as scheduling and funding. The responsibilities of coaching, administering a program, or managing competitions may well require a skill set that is quite different from that required to be effective advocates or promoters of the program. Participants in the program with strong records of successful work in specific areas may be able to serve as effective models and resources for others who need assistance and support.

E. Examine closely the role and uses of technology

E1. Expand the online resources and opportunities for teams to do FPS online.

E2. Clarify the role and use of social networking, and the desire of students to use social networking as a part of their FPS experience.

E3. Improve the efficiency of communications and email flow between the various levels of the program

E4. Seek effective ways to enhance the FPSPI website and related technology resources to provide optimum appeal and usefulness. It may be useful to differentiate technology approaches for students from those for adults.

F. Examine the strengths, concerns, and opportunities relating to program-wide management and administration.

F1. Investigate the feasibility of, and procedures for, a standardized system of data gathering and management that would include the ability to keep in contact with individual teams and team members program-wide.

F2. Develop a common core of management processes and program procedures that include scheduling and deadlines across affiliates.

F3. Explore different ways and options for selecting locations, tours, and scheduling of recreation for IC

F4. Seek ways to increase support staff (and reduce the demands on existing staff) to carry out operational duties at IC.

G. Continuously review and reassesses procedures, rules, and evaluation/feedback

G1. Review and revise the evaluation and feedback procedures for each component to reduce the perception of bias, inconsistency, and vagueness, and to improve response time in delivering feedback.

G2. Review the rules, restrictions and expectations for each component to ensure that they support, rather then inhibit student creativity and achievement at a high level.

G3. Review the guidelines and directions for each component to ensure that they reflect (and are compatible with) current practice and field realities, and that they provide the clarity needed for easy understanding and compliance.

G4. Review the topics, for breadth and relevance, especially for students at the junior level.

G5. Review and update the CmPS handbook.

H. Develop a systematic approach to build and maintain effective relationships with parents.

H1. Develop materials that would help parents support the efforts of student participants at home.

H2. Develop materials that would promote the organization of FPS parent support groups on the local level, similar to the band or sports booster clubs that are organized in many school districts (aimed at helping parents become community advocates for FPS).

I. Develop a systematic approach to build and maintain effective ongoing contact and relationships with students who have participated in FPS ("alumni").

I1. Seek ways to make effective use of the potential contributions alumni can make to the program through ongoing involvement in new roles.

I2. Implement deliberate activities to gather, document, and share "success stories" or "testimonials" from former program participants, describing how their participation in FPS has had continuing personal, academic, and career impact and value. Developing a record of such stories (in print or on video, for example) may be inspirational to current and future participants (both students and adults) and may also be useful in marketing and promoting the program.