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NEEDS ASSESSMENT

An Interactive Qualifying Project Report

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by

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Abstract (80 words)

The goal of this project was to see what services of the Center for Educational Development (CED) are most useful, and what other teaching support and services the faculty would like to see offered. By surveying faculty, adjunct professors, graduate teaching assistants, and department heads, we showed that the Food for Thought Luncheons are by far the most popular events offered by the CED, and the Student Observer Program is the least used service. The faculty would like to see a seven-week independent educational project offered, as well as having a teachers committee formed.

Executive Summary

Prior to the start of this Interactive Qualifying Project, the Center for Educational Development (CED) had little information on the needs and interests of the Worcester Polytechnic Institute faculty and graduate teaching assistants. The members of this IQP group gathered opinions from the faculty and presented them to the CED so that it can better serve the institution.

Four anonymous surveys were used to determine the needs of the WPI faculty and graduate teaching assistants, as well as provide the CED with information about its users. The surveys were given to four groups of the users of the CED. These groups included full-time WPI faculty, adjunct faculty, WPI department heads, and graduate teaching assistants. The survey was given to the full time faculty because they teach only at WPI, they deal with students on a full time basis, and they comprise the largest group of the users of the CED. The adjunct faculty were surveyed separately from the full time faculty because they deal with the CED differently. The department heads were given a survey to determine the needs of their faculty. Graduate teaching assistants (TAs) received a different survey because their view of the CED is different from that of a full-time faculty member. The TAs presented their needs from a teacher's point of view as well as a student's. The four groups' information was compiled to give the CED a well-rounded impression of its users' needs.

The four anonymous surveys were distributed in the form of questionnaires that covered seven topics. The first topic covered was the recognition of the CED. The second topic covered dealt with the participation in CED events. This determined the percentage of the respondents who had participated in at least one event sponsored by the

CED. The third topic covered was the credibility of the CED. The fourth topic of the survey determined what services of the CED are or have been used by the respondents and which of the topics a respondent has interest in. The fifth topic covered determined the level of interest of the respondents in a seven-week project aimed at developing their teaching skills. The sixth topic probed the respondents' interest levels in forming a teachers committee comprised of WPI faculty. The final topic covered in the questionnaire dealt with technology in the classroom.

The surveys were collected, and responses entered into an Excel spreadsheet for analysis. We found that the Food for Thought Luncheons were by far the most popular events offered by the CED. This is probably at least in part because free food is served at the luncheons. The least popular event was the Student Observer Program. Not only did the respondents not use the program, they had low levels of interest in it. This would show that events which offer food will most likely have a greater attendance, and that the CED should not expend too much of its assets on promoting the Student Observer Program.

The questionnaires introduced to the respondents the possibility of a seven-week independent educational project where faculty would be reimbursed for their time. The faculty and adjunct groups were asked for their level of interest in taking part in the seven-week teaching project. Both of these groups showed levels of interest of about 3, which on a scale from 1 to 5 would be considered average. There was a strong correlation between the number of CED events a respondent had used, and the respondent's level of interest in the seven-week teaching project. There was also a strong correlation between the respondent's level of interest in the seven-week teaching project,

and the respondent's level of interest and expertise in technology. If the CED chooses to provide this service to the WPI community, it should expect that a large percentage of those interested in the seven-week teaching project will have used the CED previously, and that they will have high levels of interest or expertise in technology.

WPI does not have a teachers committee at this point. In all four groups surveyed, we found that many of the respondents showed great interest in forming a teachers committee. The faculty and graduate teaching assistant response groups both showed strong correlations between the number of CED events used and the respondent's level of interest in forming a teachers committee. Based on the number of positive responses, we recommend that the CED form a teachers committee. If the CED chooses to pursue this, we found that both peer nomination and selecting the winners of the Trustees' Award for Outstanding Teaching were the two most popular ways of forming the teachers committee. The least popular technique for forming the teachers committee would be selecting those professors who are authors of teaching portfolios.

The information we gathered through these questionnaires will help not only the WPI community, but also other universities and colleges. Other schools will be able to use our data for comparative purposes as well as for developing their own surveys concerning faculty development.

Authorship

The entire group worked together to write all sections of this report.

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Introduction

In recent years, faculty and academic development programs have become increasingly significant at institutions of higher learning.[1] If universities and colleges are to successfully fulfill their missions as institutions of higher learning, the matter of improving teaching must rank as a top priority.[2] To address this priority, Worcester Polytechnic Institute has a Center for Educational Development (CED) that provides support and services for the improvement of teaching and learning. The CED has existed since 1996 and due to its recent formation, it has never accrued information concerning its users' needs. This IQP group designed four surveys and distributed them to WPI professors, adjunct professors, graduate teaching assistants, and department heads. The goal of these surveys was to see what current services of the CED its users perceive as the most useful, and what other teaching support and services the users of the CED would like to see offered.

Background

Center for Educational Development

The Center for Educational Development was established to promote reflective thought and dialogue on the art, science, and craft of college teaching.[3] Directed by Professor Judith Miller, the CED carries out this mission by providing continuing support for the enhancement of teaching and learning at WPI.[4] The CED's mission is divided into three areas.

In the first area, the CED provides teaching support and services for the WPI community. It does this by participating in orientation for TAs and faculty, mentoring new faculty, assisting in PLA hiring and training, conducting skill building workshops, organizing skill building workshops by outside presenters, maintaining a collection of instructional and faculty development materials, and consulting with faculty regarding the improvement of teaching.[5]

In the second area, the CED promotes educational scholarship at WPI. The CED provides assistance in grant writing, assistance in the preparation of publications, and presentations concerning educational scholarship. It administers internal programs of grant support for educational projects such as those funded by the Educational Development Council (EDC).[6]

Lastly, the CED promotes greater external awareness of WPI's teaching excellence by serving as WPI's representative in local, regional, and national faculty development organizations. These organizations include the Colleges of Worcester Consortium Faculty Development Committee, the New England Faculty Development Consortium, and the Professional and Organizational Development (POD) Network.[7]

The POD Network serves as a forum for educational development directors from all over the nation.

The CED relies on the information contained in its own library as well as electronic sources from other universities and colleges. Although the CED has access to a tremendous wealth of knowledge, at this time the CED has inadequate data concerning the needs of its users. The information gained from this project will aid the CED in better understanding its users, thereby better fulfilling its mission statement of "Providing continuing support for the enhancement of teaching and learning at WPI."[8]

Teaching Theory

Teaching theories are especially important for those who must convey information at a college level.[9] Teaching theories are based on how people learn. Successful teaching methods stem from fundamental learning principles. These teaching methods are discussed as follows:[10]

- Guide the learner: Students should be able to look to their teachers for guidance. Teachers must be sure that students know their objectives, and what will follow in the course. Teachers must also provide organization and structure appropriate for the class level.[11]
- Develop a structured hierarchy of content: Because non-structured material tends to be confusing and can distract students, there must be some organization of the material. There should also be opportunities for the students to provide their own structures. To get a full grasp of the material, course content should also include concepts, applications, and problem solving.[12]

- Use images and visual learning: Most students prefer visual learning and often remember the material better. Teachers should encourage students to generate their own visual aids.[13]
- Ensure that the student is active: Students must actively grapple with the material so that interest is maintained and skill is acquired. This can be done by including course activities that require writing, speaking, building, or experimenting.[14]
- Require practice: In order to learn complex concepts, tasks, or skills such as problem solving, students must be able to practice these techniques freely. Repetition is required to become fast and accurate.[15]
- Provide feedback: Ideally feedback should be prompt and positive. Studies show that rewards work much better than punishments. Students also need practice after feedback, in order to fully benefit from it.[16]
- Have positive expectations of students: A professor that shows positive expectations and respect of the students will be highly motivating. A great teacher must truly believe that his or her students are capable of excellence.[17]
- Provide means for students to be challenged yet successful: Teachers must provide their students with the necessary background to complete a problem, yet still maintain a challenge.[18]
- Individualize the teaching style: Teachers should use a variety of teaching styles so that students become familiar with multiple learning techniques and to reach students with different learning styles.[19]

- Ask thought-provoking questions: Questions without answers can be particularly motivating for more mature students. These questions also maintain interest in the material.[20]
- Be enthusiastic and demonstrate the joy of learning: Students enjoy courses much more with an enthusiastic professor.[21]
- Encourage students to teach other students: Students who tutor other students learn more, because they must fully understand the material. Tutoring also increases students' confidence in their abilities.[22] This can also be implemented in the classroom in the form of cooperative learning exercises.
- If possible separate teaching from evaluation: Ideally a different person should evaluate the students. This can be done through the use of TA's or undergraduate learning assistants. The teacher then becomes an ally of the students whose goal is to help them learn.[23]

Although these methods have been proven to work, every teacher creates his or her own teaching method. The teaching method is based on his or her personality and experience, the purposes and subject matter of instruction, and the students he or she teaches.[24]

Assessment at the University Level

The perceived need for assessment programs began in the early 1980's on a national level when national committees or commissions completed a series of studies. These committees called for a change in American higher education and the definition of "excellence," particularly in undergraduate education.[25] In 1984, the Study Group on the

Conditions of Excellence in American Higher Education strongly suggested assessment as a form of feedback to improve teaching and learning.[26]

Today, teaching assessments rely heavily on self-evaluation, colleague evaluation, or student evaluation as sources of data.[27] On the basis of these assessments, important decisions are made concerning the status of those subject to review. Faculty members may be granted or denied promotion in rank. Some faculty members may be granted substantial salary increments while others are given more modest salary increments. The contracts of some staff members may be renewed while the contracts of others in the same institution and department are terminated.[28] In order for an institution to constantly improve, it must continue to assess its faculty. Through the assessment of faculty the needs of the professors can be brought to light. Such needs may include teaching techniques that allow the professor to communicate to his/her students, as well as how to incorporate the latest technology into the course structure. Other needs may be as simple as how to handle cheating or grade an exam.

A problem with today's assessment of faculty is that it evaluates a professor based on his/her research and public image more than teaching competence.[29] Often a professor can be a master of his/her field of expertise without being able to effectively communicate with students. A better assessment program would take this professor's needs and inability into account.

Assessment practices should further the basic aims and purposes of our higher education institutions.[30] Faculty, administrators, or anyone else who conducts assessment activities needs to understand why they assess, and how the results can be used to enhance educational policy and practice.[31]

A basic challenge of assessing faculty is that the potential value of faculty assessments for improvement of performance can be compromised if the assessment information is also used in the personnel review process.[32] One approach to this challenge is to have students fill out assessments for the professor's eyes only and other assessments for the personnel review process.[33] Likewise, a professor's self-evaluation must not be used for review purposes. After all, who would honestly point out his/her flaws to a review committee? A self-evaluation should only be used for self-improvement, perhaps with the assistance of an educational development center.

Ideally, teaching assessment should document areas of need in faculty development. However, currently faculty members are assessed to verify the distribution of resources and to uphold the institution's reputation.[34] Often, teaching competence has little to do with hiring or tenure. In an effort to solve this problem, many schools have recently introduced educational development centers. The educational development centers identify the faculty's teaching needs and offers assistance through the use of workshops, seminars, lectures, etc. Our project aids the WPI Center for Educational Development by surveying faculty in order to help identify these needs.

Needs Assessment of Faculty Development Programs

A needs assessment program is designed to evaluate the needs and interests of a specific group of people. Examples of these groups are faculty, students, employees, or clientele. Needs assessment programs for faculty are usually carried out through faculty development centers. Faculty development centers evaluate individual faculty development components or interventions, such as teaching skills, mentoring programs,

or colleague visits during lectures. However, very few faculty development centers have designed a method to comprehensively evaluate their programs to measure the effectiveness and impact on institutions.[35] One of the problems with developing a comprehensive needs assessment program is that there are no standards against which to compare results. As an example, at several universities faculty developers volunteered their opinions on the values of two parameters: the lowest acceptable value (i.e., a value below which the respondent would recommend that the center make substantial changes) and the highest realistic value. These parameters were presented via the POD network.[36] Each university considered the recognition of their teaching development center, participation in the events of the center, and the lack of credibility of their center.

TABLE 1 – "Quasi-Benchmarks" from four Universities

	Recognition		Participation		Lack of Credibility	
	Low	High	Low	High	High	Low
School A	35	75	15	40	5	10
School B	20	60	20	50	30	50
School C	15	20	10	20	0	15
School D	60	90	30	75	-	-
Mean	33	61	19	46	12	25

Low and high percentages from four anonymous schools when asked about their faculty development center's recognition, participation, and lack of credibility.

A.) Recognition is defined as the percent of faculty members and graduate teaching assistants who knew of the existence of the Center for Teaching before receiving the questionnaire.[37]

B.) Participation is defined as the percent of faculty members and graduate teaching assistants who have attended a Center for Teaching event or sought services from the center.[38]

C.) The lack of credibility is defined as the percent of faculty members and graduate teaching assistants who have not attended a Center for Teaching event or sought services from the center because they believe that the center lacks relevant expertise.[39]

Comparing just four universities' opinions resulted in extremely diverse responses. (Table 1) This shows that there are no established values to which faculty

development centers can compare themselves. However these categories are useful because almost all faculty development programs could determine these percentages.

The Center for the Enhancement of Teaching and Learning (CETL) at California State University at Fresno (CSUF) carries out many activities including the compiling of bibliographies and the development of a resource area with useful publications; and assisting faculty in the development of grant proposals relating to teaching and learning; and sponsoring workshops, symposiums, and informal and more structured discussions of specific instructionally related topics.[40] Two questionnaires were distributed to the CSUF faculty, through inter-campus memos in 1995. Both of the questionnaires utilized a check box format and both lacked the option to mark one's level of interest. This greatly limits the amount of data that can be collected. The first was used to determine faculty interest in a variety of general topics for faculty development events based on specific teaching problems and strategies. This survey was also used to determine if a faculty member was willing to present information on any of the topics listed. (Appendix A1a) The second survey determined interest in a list of specific workshop topics.[41] (Appendix A1b)

Wright State University's questionnaire combined open-ended questions with check boxes (Appendix A2). The open-ended questions ranged from requests for demographic information to asking for examples of how center activities have improved teaching. In addition to collecting information, the questionnaire was used to promote interest in the Center for Teaching and Learning at Wright State. Although this questionnaire may have gathered more information from each respondent, the overall

response rate (which was not given) may have been lower due to the length, and the fact that it had to be turned in by the respondent at a given location. [42]

Western Kentucky University's Center for Teaching and Learning distributed a two-page questionnaire as part of a marketing and research project. The questionnaire gathered personal information about the respondent first, and then requested various information using a 5 point scale, along with some open ended questions (Appendix A3). The 5 point scale was used to find the most convenient meeting time for seminars and the most effective method for promoting interest in the center. The open-ended questions dealt with suggested topics for workshops, seminars, and booklets for the center to distribute. The questionnaire should have taken less time than a strictly open ended questionnaire, while gathering a useful amount of information, and keeping the respondent focused on the questions asked. This questionnaire should also have had a higher response rate since the respondent only had to return it to his/her departmental secretary.[43]

Western Michigan University and Northampton Community College both distributed Faculty Development Interest surveys which were entirely closed ended (Appendices A4 and A5). The closed ended questions force respondents to choose their responses from those provided, which helps in quantifying the data. Both dealt with the same four main topics: course management, students, teaching strategies, and research in career topics. They both asked nearly identical questions but requested different information from the respondents. Northampton Community College's survey asked whether a respondent wished to pursue a workshop, a presentation, information, or had no interest in that topic, while also leaving room for comments. Western Michigan

University's survey used a five-point scale to determine the amount of interest in each of the topics, with no space for comments.

Survey Design

A well-designed survey must be concise, easy to complete, and easy to return. The positives and negatives of several types of surveys were considered in order to decide which type of survey is best for our project.

A statement of objectives should explicitly explain why the survey is being conducted, the questions that are being answered, and the methods through which they will be answered. An explanation of the expected results and how they will be used is important to provide clarification for those carrying out the survey as well as the intended audience.[44]

It is important to define the target population so that the survey can be tailored to the group. For example, it would not be appropriate to use complex language in a survey intended for a fourth grade class.

For a very large population, it is not reasonable to survey the entire population. It is a waste of time and money, and is not necessary to obtain accurate results. Instead, the more practical approach is to take a sample of the population. Sampling attempts to use a smaller group to represent the entire population in order to obtain the results. The problem with sampling is that it incurs its own error, for it is impossible to construct a sample that will perfectly represent the entire population.[45] Much consideration must be given to the sampling model to ensure that all factions of the population are properly represented.

For a smaller population, surveying the entire group is both possible and desirable because it eliminates sampling bias. However, it is still possible to create a response bias through careless construction of the questionnaire, by creating leading or awkward questions. Also, respondents can create a response bias by not responding.

Selecting the type of survey is important for achieving accurate results while using the least amount of resources (money, time, labor, etc.). There are many types of surveys, all of which have advantages and disadvantages.

Types of Surveys

Interviews

Interviews can be administered in two different ways, either in person or over the phone. Typically either method results in a high response rate, but each method has its own strengths and weaknesses. Personal interviews require a trained interviewer. Untrained individuals conducting the interview can unknowingly create response bias either through the way they ask the question, or the manner in which they conduct themselves during the interview. Respondents may not answer accurately if they feel uncomfortable, intimidated, irritated, or the need to tell the interviewer what they think the interviewer wants to hear. Interviewers may also introduce error by not marking down responses correctly, by influencing the decision of the respondent, or by just plain lying on the form.[46]

To take advantage of the personal interview while still reaching a large population, the phone may be used as a mode of administration. The advantage of the phone is that all of the population with a phone can be contacted. This includes respondents living in remote areas who could not otherwise be contacted by a personal

interview. Despite the cost of the phone calls, it tends to be cheaper to employ a few operators rather than several interviewers.[47] A disadvantage of this method is that people without phones are eliminated from the pool, but today people without phones account for a very small fraction of the population. It has been found that with both types of interviews, response rates can be improved by sending out a letter to potential respondents describing the survey and asking for cooperation.[48]

Documents

Data can also be obtained through the study of related documents. One major problem with the use of documents is the scarcity of previous research in the area of one's project. Documents can be useful in gathering information on the survey population. A drawback to the use of documents is that some information may be confidential, or at least very difficult to obtain due to legal or moral barriers.[49]

Observations

Observation is a difficult method of data collection. A systematic method must be developed in order to use observations to solve a given problem. Observations are not useful for citing specific details, but can be useful in determining a general trend.[50]

Questionnaires

The most useful type of survey for our project is the questionnaire. The questionnaire is the most efficient way to collect data from a group of thirty or more.[51] For a questionnaire to be sufficiently informative for a project, it must be designed keeping the following points in mind.

The questionnaire must have a clearly defined objective. An objective statement will help the survey designers to carefully word the questions and will make the objective

of the project clear to the participants.[52] The objective should be listed first to give the participants an idea of the purpose of the questionnaire. Once the survey purpose is clear to the participant, he/she will hopefully respond accordingly.[53]

The ordering of the questions is also important. It is common practice to place the questions that are the easiest to answer at the beginning. This allows the participant to ease his or her way into the survey, and to develop interest in the purpose of the project.[54]

Using closed answers ensures that the questions will return answers that are useful to the project. Answers to open-ended questions, such as essays or short answers, can be vague or incomplete.[55] Open-ended questions also take a longer time to complete, and may cause participants to lose interest. The advantage of open-ended questions is that the respondents are not limited in their choices, and may be able to more freely express themselves. This may also elicit points that the investigators had not considered.

The length of the questionnaire will also have an effect on participation. Respondents will be more likely to refuse to complete the survey if they feel that it will take a considerable portion of their time to complete.[56] If a survey is long the participant will be more likely to lose interest in the project, and their answers may begin to become vague and unclear.[57]

The layout of the questionnaire is important. The questionnaire should be comfortable for the participant to read as well as answer. The questions should be typed in a font that is easy to read, and should be spaced so as to make a clear distinction between them.[58]

The writing of the questions is a key part of designing the questionnaire. The structure of the questions will have a large impact on a participant's response to the

questionnaire. If there is a possibility that there could be confusion on a question, then someone will get confused.[59] The questions must be worded in a simple way and the choices of answers must also be written clearly.

The type of answer that must be given to a question can have an effect on the survey outcome. If a question can be suitably answered with a 'YES' or a 'NO', then this answer type should be provided. A survey with a checkbox choice of yes or no is also easier to tabulate. The answers themselves will tend to be less biased because the respondent cannot stray from the question addressed.[60] In general checkboxes are a quick way to get a participant's opinion, and tend to take much less time than an open question format.[61] If the answer can be categorized easily, a multiple-choice set of answers is preferred, ideally 'YES' or 'NO'. The questions must be written in a clear enough manner to allow the participant to categorize his/her opinion on the topic.[62]

The wording of a question is an integral part of the questionnaire. A poorly worded question can lead to misunderstanding of the question's meaning, causing the evaluator to misinterpret a participant's opinion on an essential part of the project.[63] One common problem is compound questions, for instance, "Do you feel you've become a better teacher because of the CED?" This implies that the respondent feels that he or she has become a better teacher, when in fact a teacher may feel that he or she has not improved at all.

The language of the questionnaire must be familiar to the reader. The designers must determine if the least educated of their participants will be able to both understand the question, and provide answers useful to the project.[64]

A question should never presume anything about the participant. The evaluator should write the questions with the thought that the participant has no knowledge of the survey topic.[65] A survey should avoid asking anything embarrassing about the participant as these questions are likely to go unanswered.[66]

Sources of Error

One major source of error in questionnaires is non-response. A questionnaire that is not returned is considered a non-response. The simplest way to reduce non-responses is to make the questionnaire easy to understand. The population that is being surveyed also has an effect on the response rate. If the population is relatively motivated or well educated, then the number of non-responses will be lower.[67]

If the survey is made easier to return, such as with a business reply or stamped envelope included, then the response rate will be greater. Rewards for returned surveys are also a way to increase the response, but this also increases the cost of the survey.[68] One other factor that can affect response rates is the anonymity of the questionnaire participants. Although there is no set response rate that defines whether a survey is accurate, a questionnaire that just accepts opinions and not names is more likely to generate a higher response.[69]

Interpreting Results

The most important part of the evaluation is the interpretation of the results to provide credible answers. To provide credibility, it is important that the conclusions be drawn from the statistical analysis of the responses. Recognizing and explaining sources of error during the evaluation is critical to providing useful answers. Response rates

should be reported. If only half the surveys were returned, it should be stated in the analysis that there may be significant sampling or response error. Identifying relationships and giving solid data to support conclusions is extremely important.

When communicating the results, it is important that the writers keep in mind the type of audience for whom they are writing. The extent of knowledge of the audience and the questions in which the audience are interested should be primary considerations when writing the report. It is of utmost importance to clearly and concisely present the conclusions of the analysis so that the reader might apply the information. All technicalities must be translated into language that the reader can understand, for it does no good to merely present numbers and graphs.[70] If the reader cannot understand the information given, then the survey is useless.

Methodology

Survey Design

An anonymous survey was used to determine the needs of the CED's users as well as provide the CED with information about its users. The faculty and graduate teaching assistants were asked for their opinions concerning the CED and its role in faculty development. The surveys were given to four groups of users: full-time WPI faculty, adjunct faculty, WPI department heads, and graduate teaching assistants. The survey was given to the full time faculty because they teach only at WPI, they deal with students on a full time basis, and they comprise the largest group of the users of the CED. The adjunct faculty were surveyed separately from the full time faculty because they deal with the CED differently. Some of the adjunct faculty do not have e-mail or an office on campus and they are here only part time, often on unusual schedules. This makes communication with them more difficult, both for the CED and for students. This lack of clear communication also makes it difficult for the CED to determine which event times are most suitable for adjunct faculty. The department heads were given a survey to determine what they feel their departments' faculty need help with most. Although the department heads are also professors, they possess information about the faculty which may be very useful in determining the needs of the faculty. Department heads received the department head's survey, which included questions from the full time faculty's survey. Graduate teaching assistants received a different survey because they are the only teachers who are still students. Their view of the CED was thought to be very different from that of a faculty member who has been teaching for an extended period. The TAs presented their needs from a teacher's point of view as well as a student's. The

four groups' information was compiled to give the CED a well-rounded impression of its users' needs.

The four anonymous surveys were distributed in the form of a questionnaire. The reasons for this decision are given as follows. An interview with each respondent would have taken up an enormous amount of time and manpower. Documents can be extremely useful for gathering information, however this topic is fairly recent so there is little published information available. Also, because the CED specifically serves the WPI community, what published information is available may not be relevant to the CED. Observations can often be the most informative method of collecting data, but the process takes a tremendous amount of time. Trying to observe nearly four hundred classes would have been beyond the scope of this project. Observation does not directly indicate teaching needs, but it does indicate teaching deficiencies. Observations provide those carrying out the survey with the faculty's needs based upon external opinions, whereas a questionnaire provides those carrying out the survey with a respondent's self-perceived needs. While observations are the most time consuming surveying technique, questionnaires are the least time consuming surveying technique. Questionnaires can be distributed to a large group, while allowing the respondent to complete the survey at his/her disposal. By allowing the respondents to answer the surveys when they wanted, they may have spent more time fully understanding and responding to each question. Questionnaires also require less time to compile than observations, or interviews, as all of the responses are in the same format.

The surveys were developed based on the CED's mission statement, list of recent events, other schools' surveys, and interviews with our project advisor. Our surveys covered seven topics listed as follows:

- Recognition of the CED.
- Participation in CED events.
- Credibility of the CED. This determined what percentage of the respondents felt that the CED possesses relevant expertise.
- What services of the CED are or have been used by the respondents and which of the topics a respondent has interest in.
- The level of interest of the respondents in participating in a seven-week project aimed at developing their teaching skills.
- A proposed WPI teachers committee.
- Technology in the classroom.

Pilot Study

A pilot study was carried out using the original survey to ensure that it could be easily interpreted and was not deemed offensive. The pilot study group consisted of six professors, one adjunct professor, four graduate teaching assistants and two department heads. Based upon their feedback, the survey questions were restructured and modified. The revised survey was approved by Professor Judith Miller. (Appendix A6)

Survey Distribution

The revised survey was printed, copied, folded and placed in intercampus mail envelopes along with a self-addressed return envelope and cover letter. (Appendix A6) The self-addressed return envelopes were marked only with the address of one of the IQP

group members to maintain the respondents' anonymity. The faculty mailing list was produced by the WPI Mailing Services Office. Department heads and adjunct professors were selected individually from the faculty mailing list using the WPI campus directory. No list existed for the graduate teaching assistants, so a search of the graduate students' financial aid packages was carried out by the WPI College Computer Center, based on the amount of funding received by each student. Any student's profile that matched the funding profile of a graduate teaching assistant was included in the list. The search was based on salary, not credits, so the list generated may have included research assistants or students with research fellowships. Labels were printed and affixed to their respective envelopes. After all the labels were attached, the surveys were delivered through intercampus mail between February 1st and 3rd. Since the adjunct faculty questionnaire was identical to the full-time faculty questionnaire, the adjunct faculty questionnaires were marked with a small dot in the upper right hand corner to distinguish them.

Survey Collection

The cover letter instructed each respondent to return the surveys by March 1st via intercampus mail using the self-addressed envelope supplied. This reduced the amount of time required of each respondent, thereby reducing the non-response error. The surveys were mailed to a group member's student mailbox where they were picked up daily. Respondents had approximately one month to return the surveys.

Statistical Analysis

While the surveys were in circulation we set up an Excel file comprised of four separate worksheets, each representing a separate response group (faculty, adjunct, TA, department head). Once the surveys were received, the data was entered into the

spreadsheet and analyzed using functions within Excel. The spreadsheet containing all of the data accrued is located on the disk accompanying this report. The analysis of our data is discussed in detail in the following section, Results and Observations.

Response Rates and Bias

The number of surveys sent out and collected are shown in Table 2 below.

TABLE 2 – Response Rates

	Faculty	Adjunct	Graduate TA	Department Head
Number of Surveys Distributed	274	60	120	13
Number of Surveys Returned	82	8	16	9
Response Rate	30 %	13 %	13 %	69 %

Number of surveys sent out, received, and the percentage of surveys received.

To determine whether or not those who responded make up a representative sample of the user groups, we compared the percentage of CED users within the response groups to the known percentage of CED users on campus. The CED provided us with a list of all its users, and how many events each person had attended since the CED's inception. From this data we determined each group's response bias. (Table 3)

TABLE 3 – Response Bias

	Faculty Groups	Graduate TA
Percentage of CED Users Within User Group	38 %	33 %
Percentage of Respondents Who Are CED Users	69 %	19 %
Resulting Response Bias	User Bias	Non-User Bias

Percentages of response groups and resulting response biases.

The faculty response groups (faculty response group, adjunct response group, and department head response group) are user biased. This is because the percentage of CED

users in the demographic group is lower than the percentage of respondents that have used the CED. The graduate teaching assistant response group appears to be non-user biased. However, there is no way of guaranteeing that all the teaching assistants were sent a survey, and many of the teaching assistants listed as CED users may have moved on since the data was collected over the past three years. Also the list may not be accurate because students who are not TAs may have been sent surveys due to funding criterion error. Furthermore, the list provided by the CED included graduate students who are not TAs but have attended CED events. For all these reasons, we cannot guarantee a non-user bias within the graduate teaching assistant response group.

Results and Observations

Recognition of CED

The first question on all four surveys was "Did you know the Center for Educational Development (CED) existed before receiving this questionnaire?" The respondents were to answer by circling either Yes or No. This question gives the CED a feel for how well known it is on campus.

TABLE 4 – Recognition of CED

Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Heads Response Group
93%	75%	69%	100%

The percentage of respondents from each response group that circled "YES" to knowing that the CED existed before receiving the questionnaire.

The faculty response group's high recognition percentage (Table 4) was expected as full time faculty receive emails from the CED on a regular basis. Most likely the adjunct response group's percentage is lower due to the fact that many of the adjunct professors don't have WPI email accounts and are not on campus full time. The graduate TA response group has the lowest recognition percentage of the four groups surveyed, which is likely because no mailing list exists for the TAs. Since the CED makes regular brief presentations at department heads' meetings, it would have been surprising if any department head had not heard of the CED before receiving the survey.

Participation in CED Events

The second question on all surveys was "Have you ever participated in a CED faculty development program or event?" The respondents were to answer by circling either Yes or No. This question was followed by a space where the respondent could

freely comment. Since the CED keeps track of its users, this question allows us to compare the results of this question with the CED usage data. The comment space was provided in hopes that those respondents who had not participated in CED events would give their reasons.

TABLE 5 – Participation in CED Events			
Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Heads Response Group
56%	63%	19%	89%
The percentage of respondents in each group who indicated that they used a CED event or service.			

The comments by the faculty ranged from "They're excellent!" to "But never again." This shows the broad spectrum of the response group. Sixty-three percent of the adjunct faculty response group circled "Yes" for this question, with very few comments. The graduate teaching assistant response group displayed the lowest participation percentage, as was expected since the recognition of the CED within this group was also the lowest of all four groups surveyed. Many of the TAs commented that the meeting times were inopportune. With only two comments listed the department heads response group had that highest participation percentage of the four groups. This was not surprising as all the respondents of this group were aware of the CED.

Participation/Recommendation and Interest Levels in CED Events

Question three was a multi-part question dealing with participation/recommendation as well as interest levels in events and services of the CED. This determined which services or events of the CED have been used (faculty/adjunct/TA) / recommended (department head) by each respondent, and what the

respondent's level of interest in each event is. There were seven services listed, each with a Yes/No usage (faculty/adjunct/TA) / recommendation (department head) option, followed by a one to five scale for the level of interest. A response of 1 indicated not interested and 5 indicated highly interested.

TABLE 6 – Participation/Recommendation and Interest Levels in CED Events

	Faculty		Adjunct		TA		Department Heads	
Number of respondents	82*		8*		16*		9*	
Events / Services	**%**	**Avg.**	**%**	**Avg.**	**%**	**Avg.**	**%**	**Avg.**
Mentoring Program	34	2.82	14	3.17	8	2.56	89	4.57
Student Observer	13	2.33	14	2.33	8	2.33	50	2.43
Teaching Consultations	9	2.59	14	3.40	8	2.78	22	3.00
Newsletter	31	2.47	33	3.14	8	2.67	33	3.20
Summer Film Festival	12	2.43	17	2.83	14	3.20	0	2.25
Food for Thought Lunches	56	3.10	57	3.71	21	2.82	78	3.63
Seminars & Workshops	39	3.02	43	4.00	29	2.83	89	3.00

Percentages of respondents who have either participated in or recommended each of the seven events or services listed. Also, the average level of interest in each event or service is listed. The level of interest ranges from 1 (not interested) to 5 (highly interested)
* Not all respondents answered this question.

The Food for Thought Lunches are the most attended CED events and also have the highest average level of interest of the seven events listed on the survey. (Table 6) The Seminars and Longer Workshops on Educational Topics had the second highest usage and average level of interest. These two services are the most popular due to the fact that they both occur frequently and are advertised by the CED as well as

recommended by department heads. The Teaching Consultations had the lowest usage percentages of all the CED's services. However, the average levels of interest were high. This indicates that the CED should probably promote greater awareness of the Teaching Consultations program. On the other hand, the Student Observer Program, that also had low usage percentages, had the lowest levels of interest. This would indicate that the CED should consider restructuring or replacing this service.

Belief that the CED Possesses the Expertise Required to Assist

The question related to this topic on the faculty and adjunct surveys was "Do you feel the CED possesses the expertise required to effectively assist you as a faculty member?" The related question on the teaching assistant's survey was "Do you feel the CED possesses the expertise required to effectively assist you as a teaching assistant?" The questions on the department head's survey were "Do you feel the CED possesses the expertise required to effectively assist you as a department head?" and "Do you feel the CED possesses the expertise required to assist your faculty?" The respondents were to answer by circling either Yes or No. This question was followed by a space where the respondent could freely comment. The comment space was provided in hopes that those respondents that felt that the CED did not possess the expertise required to assist them would give their reasons.

TABLE 7 – Belief that the CED Possesses the Expertise Required to Assist

Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Heads Response Group	
			Assist Department Heads	Assist Their Department's Faculty
62%	75%	42%	44%	67%

Percentages of respondents who feel the CED possesses the expertise required to assist.

The comments ranged from "Absolutely not!" to "CED brings so many good resources together - I appreciate the variety." A recurring comment was "Don't know." Many of the respondents left this question blank. While the faculty and adjunct response group's percentages are not low, the teacher assistants and department heads response group's percentages were brought down by non-responses.

Seven-Week Independent Educational Project

The fifth question on the faculty and adjunct surveys was "Please rate your interest in taking part in a seven-week independent educational project for a course release and travel money." The respondent was given a five-point scale ranging from 1 to 5, where 1 was not at all interested and 5 was extremely interested.

TABLE 8 – Seven-Week Independent Educational Project	
Faculty Response Group	Adjunct Response Group
Average: 2.78	Average: 2.88
Number of 4's or 5's : 27 out of 82	Number of 4's or 5's : 4 out of 8
Average level of interest in participating in a seven-week independent educational project where 1 indicates not at all interested, and 5 indicates extremely interested.	

These results show an average level of interest that may not tend to favor taking part in a seven-week independent educational project, but at least 33 % of the respondents circled a 4 or a 5. (Table 8)

Formation of a Teachers Committee

The question on all surveys related to the formation of a teachers committee was "How interested are you in having the CED develop a teachers committee?" The respondent was given a five-point scale ranging from 1 to 5, where 1 indicated not at all interested and 5 indicated extremely interested.

TABLE 9 – Formation of a Teachers Committee			
Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Heads Response Group
2.51	3.29	2.87	2.38
Average levels of interest in forming a teachers committee where 1 indicates not at all interested and 5 indicates extremely interested.			

Department heads had the lowest average level of interest in forming a teachers committee, while the adjunct response group had the greatest level of interest. The faculty response group, which is the largest response group, would most likely make up the largest percentage of the teachers committee. There were very few "Extremely Interested" responses, and the average level of interest was 2.51. However, there were 39 out of 82 respondents that circled "3" or "4", which indicates that there might be a strong response if this committee is offered.

Selection Process for the Formation of a Teachers Committee

All of the respondents were asked "Which of the following selection processes would you recommend for forming a teachers committee?" The respondent was given six non-exclusive check-box choices, which consisted of the options shown in Table 10.

TABLE 10 – Selection Processes for the Formation of a Teachers Committee					
Selection Process	Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Head Response Group	**Sum**
Self Nomination	23	28	18	11	80
Authors of Teaching Portfolios	9	17	9	11	46
Peer Nomination	30	28	23	33	114
A Selection Committee	18	11	23	11	63
Winners of Teaching Award	20	17	27	33	97
Other	0	0	0	0	0
Percentages of respondents who checked off the selection process shown.					

Using the authors of teaching portfolios as a selection process was the least popular among all other selections. The most popular selection process was the peer nomination process, followed by the winners of the trustees' award for outstanding teaching. The next most popular process was self nomination. None of the respondents recommended any selection processes not listed on the survey.

Interest and Expertise in Technology

The final question on all the surveys, except for the department head's survey, was "On a scale of 1 to 5 how interested are you in using each of the technologies listed below (1 – not interested, 5 – highly interested), and what is your relative level of expertise (1 – novice, 5 – expert)?" The final question on the department heads survey was "On a scale of 1 to 5 how interested are you in having your department's faculty become more familiar with each of the technologies listed below (1 – not interested, 5 – highly interested)?" The technologies were listed as shown in TABLE 11 below.

TABLE 11 – Interest and Expertise in Technology								
	Faculty Response Group		Adjunct Response Group		Graduate TA Response Group		Department Head Response Group	
	Int.	Exp.	Int.	Exp.	Int.	Exp.	Int.	NA
PowerPoint	3.17	3.14	2.67	2.50	4.33	3.67	2.43	1
Internet in Classroom	3.37	3.40	3.50	3.50	4.20	3.73	3.15	0
Internet for Research	4.08	3.88	4.33	3.67	4.80	4.13	3.00	0
Lap Top	2.91	3.03	3.00	2.50	4.00	3.27	2.75	0
Online Courses	2.93	2.64	2.83	2.67	3.13	2.33	3.00	0
Distant Learning Courses	2.29	1.93	2.67	2.50	2.47	2.07	3.14	1
Course Info (Blackboard)	3.61	2.39	3.50	2.60	3.63	2.86	4.57	2
High Bandwidth Internet	3.32	2.41	3.80	1.83	4.07	3.13	3.60	2
Levels of interest and expertise are shown based on a five-point scale where 1 indicates not interested / novice and 5 indicates highly interested / expert. Also, those department heads who felt the topic was not applicable were tallied and shown in the column "NA".								

Correlations

The following correlations were chosen to allow us to draw useful conclusions from the data collected through the questionnaires. Through the use of correlation calculations we can mathematically rate the strength of the relationships within each response group. In social science research a small correlation can be considered anything that falls between 0.2 and 0.3, a moderate correlation falls between 0.3 and 0.5, a moderately strong correlation falls between 0.5 and 0.7, a strong correlation falls between 0.7 and 0.9, and any correlation above 0.9 can be considered a virtual identity.[71] There is no set number of data points required to generate a statistically significant correlation.[72] However, the correlation will prove to be more useful when more data points are

available. Although the results are discussed briefly in this section, the most useful information for the CED is presented in the conclusions section of this report.

Correlation Between the Number of CED Events Used and the Level of Interest in Technology

The first correlation considered was "What correlation is there between the number of CED events used and the level of interest in technology?" The department head group was not asked which events each respondent has used, but rather which events the respondent has recommended. The first correlation for the department head group was "What correlation is there between the number of CED events recommended and the level of interest in technology?" These correlation values are shown in TABLE 12 below.

TABLE 12 – Correlation Between the Number of Events Used (faculty, adjunct, TA) /Recommended (department head) and Level of Interest in Technology.

Faculty response group	Adjunct response group	Graduate TA response group	Department head response group
0.2707	0.6149	-0.2689	0.1730
The numbers shown are the correlations calculated.			

The lowest correlation value between the number of events used and the level of interest in technology came from the graduate teaching assistant response group. Although the number is negative, its correlation value is lowest because it is closest to zero. All that this number tells us is that the graduate teaching assistants' usage can not be predicted by their level of interest in technology. On the other hand, the adjunct response group had a very high correlation value of 0.6149, since a value of 0.400 is considered to be a robust correlation in social science research. This means that there is a

strong link between the number of events used, and the level of interest in technology within the adjunct response group. For the faculty response, group the correlation was not as noticeable. This means that although there is some link between the number of events used and the level of interest in technology within the faculty response group, it is not a strong enough correlation to predict a respondent's behavior. The department head response group's correlation value was low, showing that the number of CED events recommended is not strongly connected to the level of interest in technology. The scatter plots of these correlations are shown in Figures 1 through 4.

FIGURE 1 - Faculty Response Group Correlation Between the Number of CED Events Used and the Level of Interest in Technology

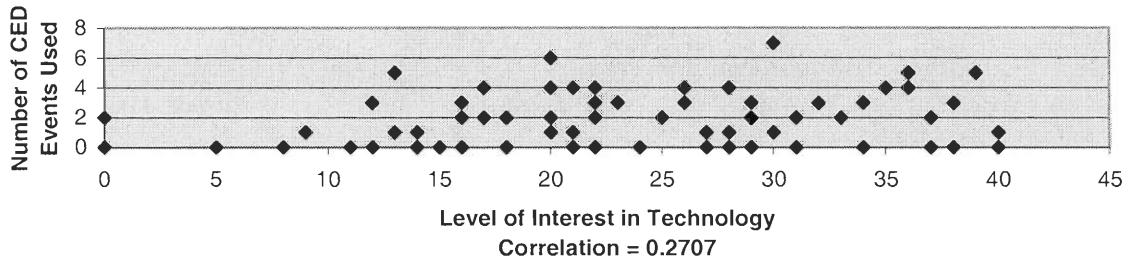
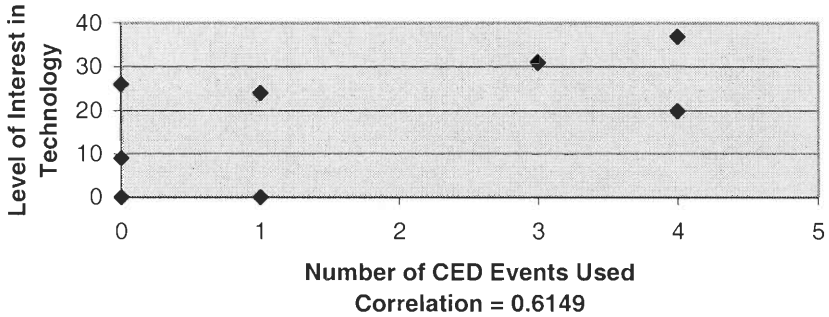


FIGURE 2 - Adjunct Response Group Correlation Between the Number of CED Events Used and the Level of Interest in Technology



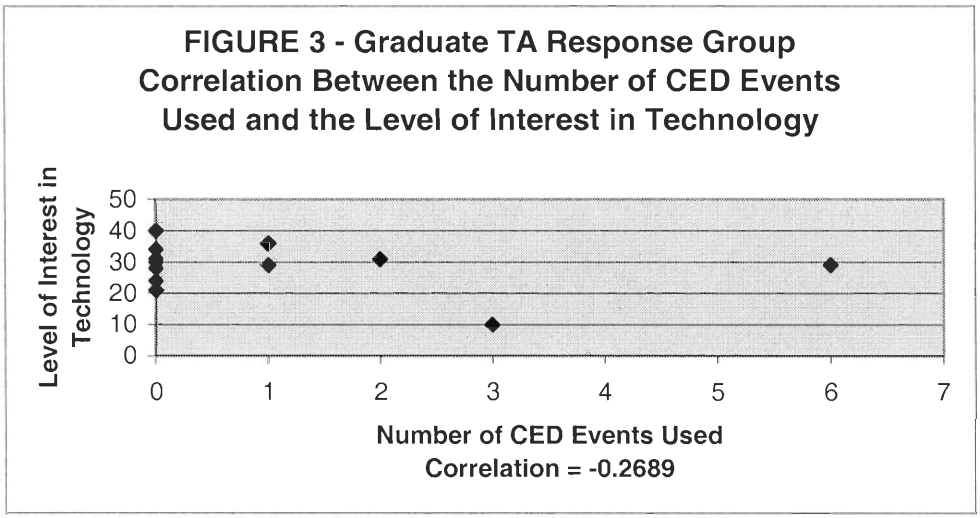


FIGURE 3 - Graduate TA Response Group
Correlation Between the Number of CED Events
Used and the Level of Interest in Technology
Level of Interest in Technology
50
40
30
20
10
0
0
1
2
3
4
5
6
7
Number of CED Events Used
Correlation = -0.2689

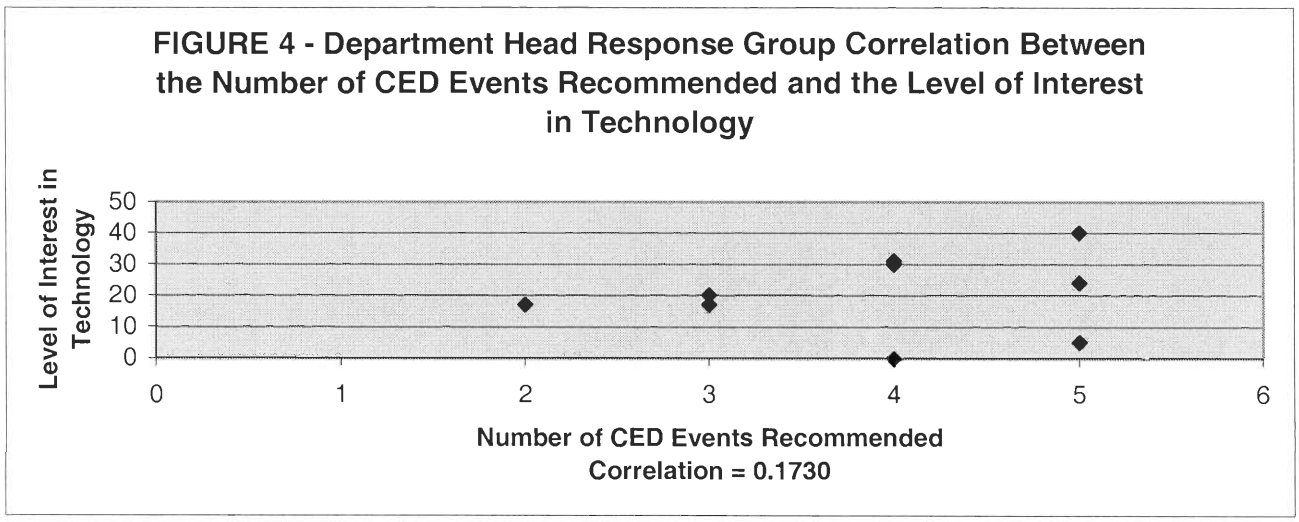


FIGURE 4 - Department Head Response Group Correlation Between
the Number of CED Events Recommended and the Level of Interest
in Technology
Level of Interest in Technology
50
40
30
20
10
0
0
1
2
3
4
5
6
Number of CED Events Recommended
Correlation = 0.1730

Correlation Between the Number of Events Used, and the Level of Expertise in Technology

The second correlation considered was "What correlation is there between the number of CED events used and the level of expertise in technology?" The department head group was not asked for their level of expertise in technology, therefore this correlation does not apply to the group. The other response groups' correlation values are shown in Table 13.

TABLE 13 – Correlation Between the Number of Events Used and Level of Expertise in Technology

Faculty response group	Adjunct response group	Graduate TA response group
0.1405	0.6828	-0.2300

The numbers shown are the correlations calculated.

In this correlation, the graduate teaching assistant response group's value is again negative, although the faculty response group's value is the lowest. Also, the adjunct response group's correlation value is exceptionally high at 0.6828, which shows that the number of events used and the level of expertise in technology are strongly connected. These values are similar to those found in correlation one. The scatter plots of this correlation are shown in Figures 5 through 7.

FIGURE 5 - Faculty Response Group Correlation Between the Number of CED Events Used and the Level of Expertise in Technology

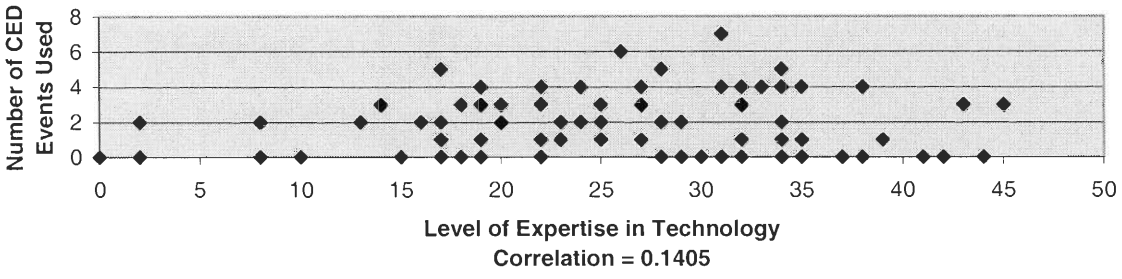
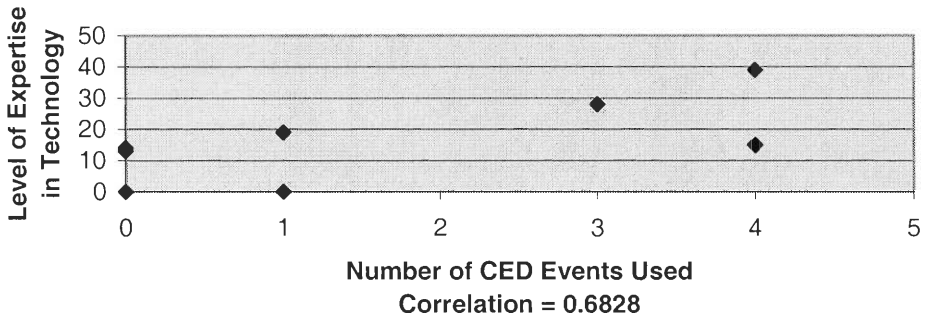
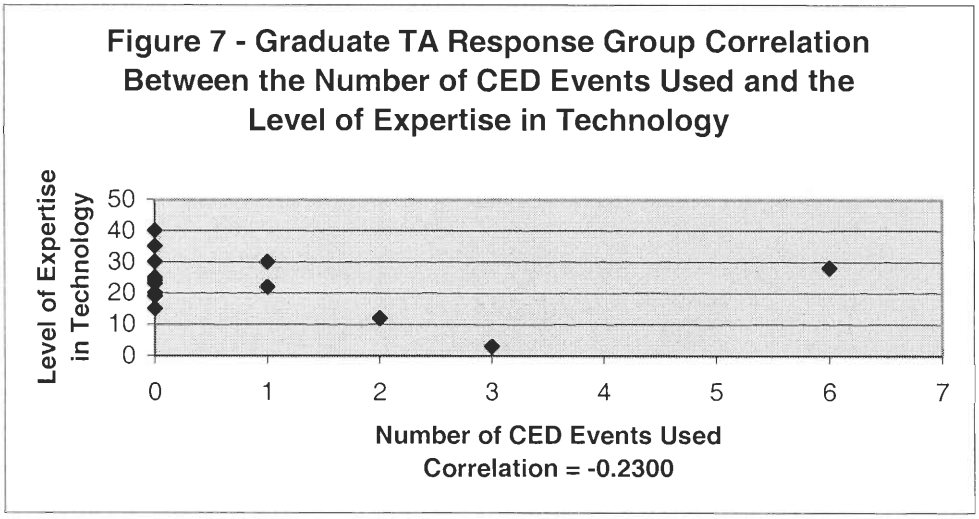


FIGURE 6 - Adjunct Response Group Correlation Between the Number of CED Events Used and the Level of Expertise in Technology





Correlation Between the Number of CED Events Used, and the Level of Interest in Taking Part in the Seven-Week Teaching Project

The third correlation considered was, "What correlation is there between the number of CED events used and the level of interest in taking part in the seven week teaching project?" This correlation was studied only within the faculty and adjunct response groups. This is because the department heads and graduate teaching assistants would not be able to devote seven weeks to a special project during a term. The correlation values are shown in TABLE 14 below.

TABLE 14 – Correlation Between the Number of CED Events Used, and the Level of Interest in Taking Part in the Seven-Week Teaching Project	
Faculty Response Group	Adjunct Response Group
0.4863	0.3260
The numbers shown are the correlations calculated.	

If the CED were to offer a seven week teaching project to the WPI faculty, most likely those who have participated in CED events will show the highest interest in the project. The scatter plots for this correlation are shown in Figures 8 and 9.

FIGURE 8 - Faculty Response Group Correlation Between the Number of CED Events Used and the level of Interest in the Seven Week Teaching Project

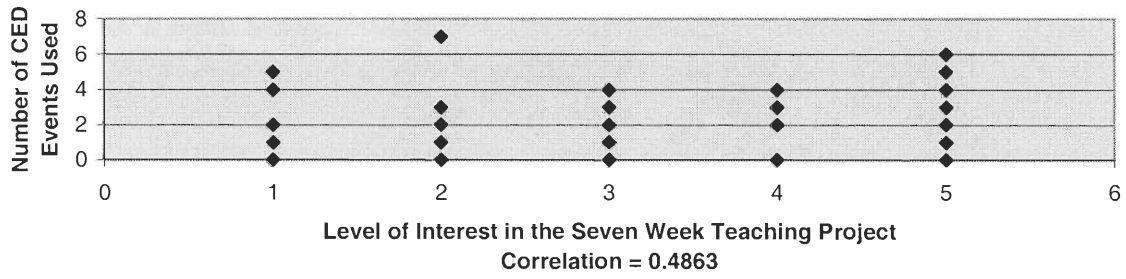
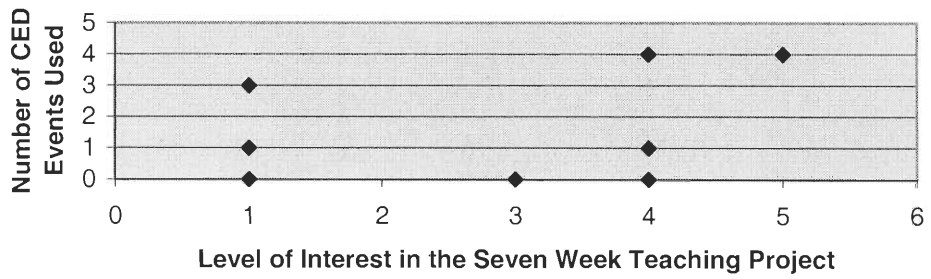


FIGURE 9 - Adjunct Response Group Correlation Between the Number of CED Events Used and the level of Interest in the Seven Week Teaching Project



Correlation Between the Number of CED Events Used / Recommended and the Level of Interest in Forming a Teachers Committee

The fourth correlation studied for all the groups, except for the department head response group, was "What correlation is there between the number of CED events used and the level of interest in forming a teachers committee?" The department head's survey did not ask which events of the CED had been used, instead they were asked which events of the CED they had recommended. The correlation studied for the department head response group was "What correlation is there between the number of CED events recommended and the level of interest in forming a teachers committee?" These correlation values are shown in Table 15.

TABLE 15 – Correlation Between the Number of CED Events Used (faculty, adjunct, graduate TA) / Recommended (department head) and the Level of Interest in Forming a Teachers Committee

Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Head Response Group
0.5476	-0.0604	0.4812	0.0821
The numbers shown are the correlations calculated.			

In this case, two of the response groups had moderately high correlation values, while the other two groups had virtually no correlation at all. This indicates that the faculty response group and the graduate teaching assistant response group both display noticeable links between the number of events used and the level of interest in forming a teachers committee. These correlation values show that if the CED wishes to form a teachers committee, it will receive the most support from those faculty who have frequently used CED events. The scatter plots of this correlation are shown in Figures 10 through 13.

FIGURE 10 - Faculty Response Group Correlation Between the Number of CED Events Used and the Level of Interest in Forming a Teacher's Committee

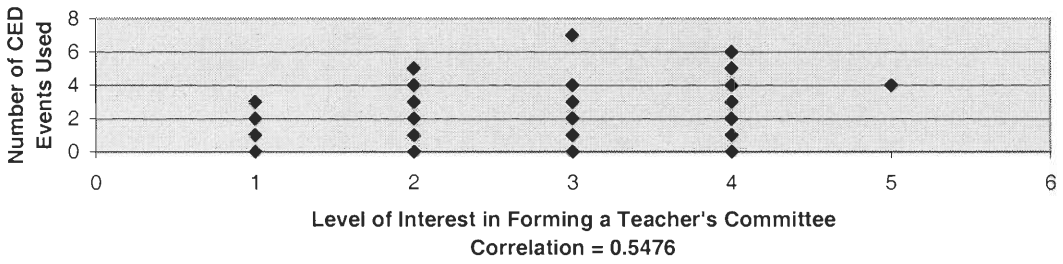


FIGURE 11 - Adjunct Response Group Correlation Between the Number of CED Events Used and the Level of Interest in Forming a Teacher's Committee

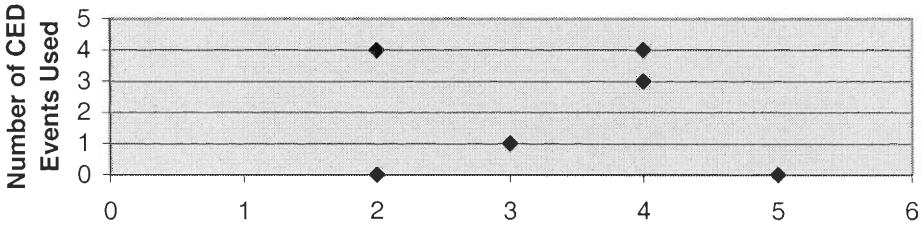
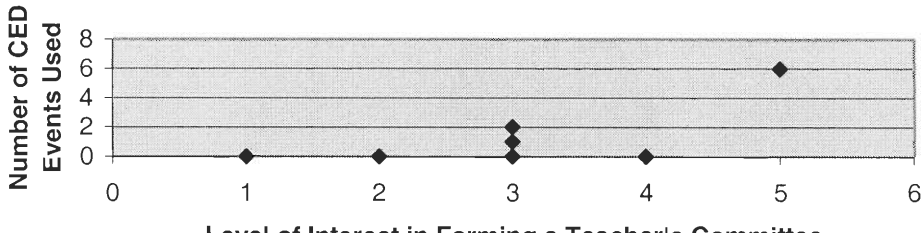
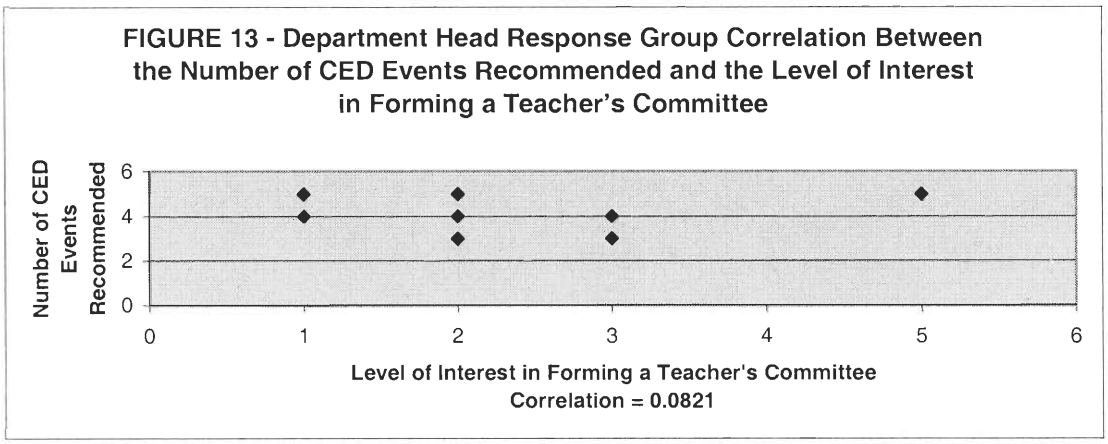


FIGURE 12 - Graduate TA Response Group Correlation Between the Number of CED Events Used and the Level of Interest in Forming a Teacher's Committee





Correlation Between the Number of CED Events Used, and Whether or Not the Respondent Believes CED Possesses the Expertise Required to Assist Them

The fifth correlation studied was "What correlation is there between the number of CED events used, and whether or not the respondent believes the CED possesses the expertise required to assist them?" This question was broken down into two questions for the department head response group. The first was "What correlation is there between the number of CED events recommended and the belief that the CED possesses the expertise required to assist them?" The second was "What correlation is there between the number of CED events recommended and the belief that the CED possesses the expertise required to assist their faculty?" These correlation values are shown in the charts below. There are no scatter plots for this correlation as the belief in the CED is either affirmative, or negative. The plots only come out as two sets of dots, which is not best represented by a plot.

TABLE 16 – Correlation Between the Number of CED Events Used, and if the Respondent Believes the CED Possesses the Expertise Required to Assist Them		
Faculty Response Group	Adjunct Response Group	Graduate TA Response Group
0.4684	0.4619	0.2533
The numbers shown are the correlations calculated.		

TABLE 17 – Correlation Between the Number of CED Events Recommended and if the Respondent Believes the CED Possesses the Expertise Required to Assist Them/Their Faculty	
Department Head Response Group (assisting them)	Department Head Response Group (assisting their faculty)
-0.5590	-0.5400
The numbers shown are the correlations calculated.	

These correlation values show that the those faculty within the faculty response group, or the adjunct response group who use the CED more, are most likely to believe the CED possesses the expertise required to assist them. This is expected as those who feel the CED does not possess the expertise required to assist them, would not likely attend the events. The department head response group's correlation values are somewhat disturbing. These strong negative values indicate that those who highly recommend the CED, do not feel it possesses the expertise required to assist them, or their faculty. It could also indicate that those department heads who feel the CED possesses the expertise required to help, do not recommend the CED to their faculty.

Correlation Between the Number of CED Events Used, and the Level of Interest in the CED Events

The sixth correlation for all the groups, except for the department head response group, was "What correlation is there between the number of CED events used, and the level of interest in the CED events?" The department head's correlation was "What

correlation is there between the number of CED events recommended, and the level of interest in the CED events?" These correlation values are shown in Table 18.

TABLE 18 – Correlation Between the Number of CED Events Used (faculty, adjunct, TA) / Recommended (department heads) and the Level of Interest in the CED Events

Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Head Response Group
0.5259	0.0314	0.3372	0.4029
The numbers shown are the correlations calculated.			

Very high correlations were expected for these groups as those with high levels of interest in the CED events should be more likely to attend CED events. This was the case with all the response groups except for the adjunct response group. The adjunct response group showed high interest levels, but did not take part in many events. The adjunct response group did not attend meetings for some reason other than a lack of interest. Most likely, it is due to scheduling constraints, or communication barriers. The scatter plots for these correlations are shown in Figures 14 through 17.

FIGURE 14 - Faculty Response Group Correlation Between the Number of CED Events Used and the Level of Interest in the CED Events

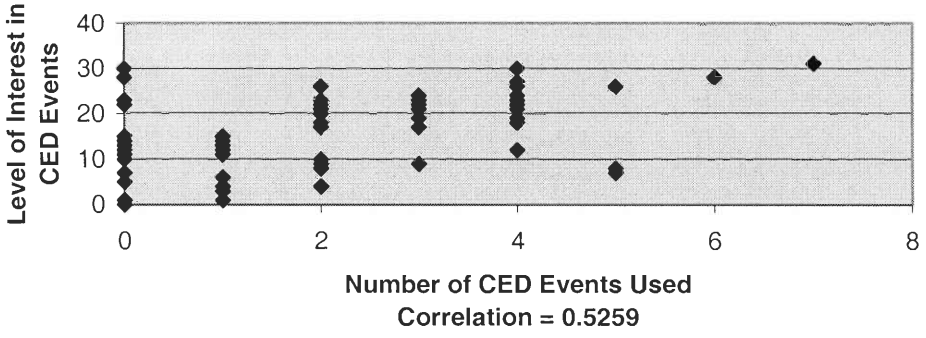


FIGURE 15 - Adjunct Response Group Correlation Between the Number of CED Events Used and the Level of Interest in CED Events

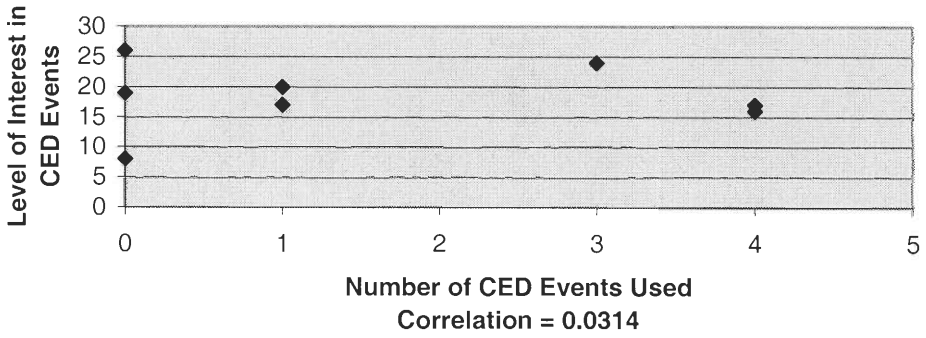
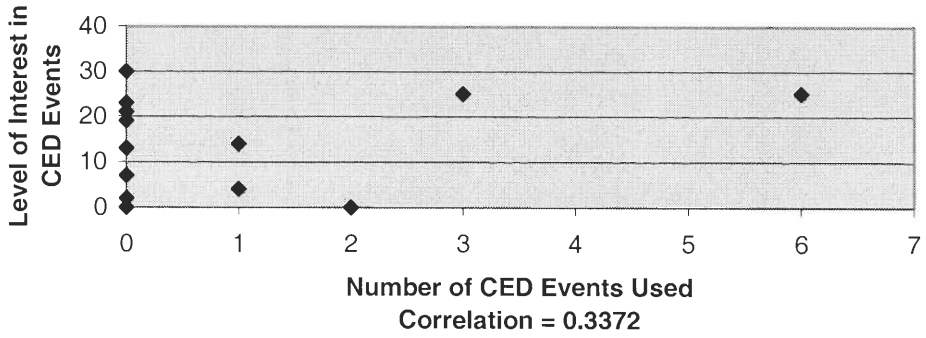
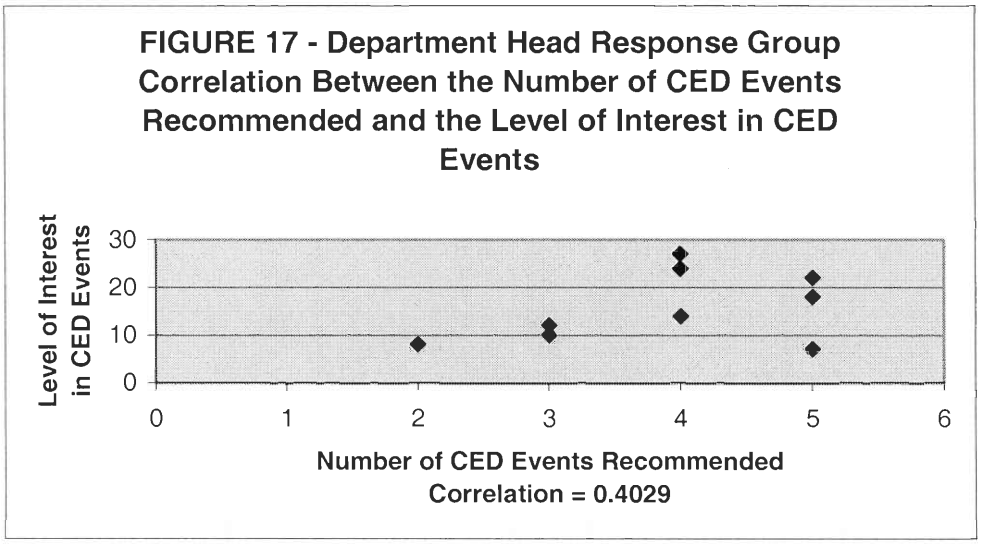


FIGURE 16 - Graduate TA Response Group Correlation Between the Number of CED Events Used and the Level of Interest in CED Events





Correlation Between the Level of Interest in the CED Events and the Respondent's Belief that the CED Possesses the Expertise Required to Assist

The seventh correlation studied was "What correlation is there between the level of interest in the CED events and the respondent's belief that the CED possesses the expertise required to assist them?" This was further broken down for the department heads response group. Their first correlation was "What correlation is there between the level of interest in the CED events and the respondent's belief that the CED possesses the expertise required to assist them?" The second correlation was "What correlation is there between the level of interest in the CED events and the respondent's belief that the CED possesses the expertise required to assist their faculty?" The results of these correlations are in Tables 19 and 20. There are no scatter plots as the respondent's belief in the CED is binary, and no plot would represent the data usefully.

TABLE 19 – Correlation Between the Level of Interest in the CED Events and the Respondent's Belief that the CED Possesses the Expertise Required to Assist Them		
Faculty Response Group	Adjunct Response Group	Graduate TA Response Group
0.4935	0.7677	0.4744
The numbers shown are the correlations calculated.		

TABLE 20 – Correlation Between the Level of Interest in the CED Events and the Respondent's Belief that the CED Possesses the Expertise Required to Assist Them/Their Faculty	
Department Head Response Group (assisting them)	Department Head Response Group (assisting their faculty)
-0.3350	-0.2640
The numbers shown are the correlations calculated.	

In this case, all the response groups, except for the department head response group, had strong positive correlation values. Strangely, the department head response groups had moderate negative correlations. This would imply that those who have high levels of interest in the CED's events, do not feel the CED possesses the expertise required to assist them, or their faculty. It would also imply that those who feel the CED possesses the required expertise to help them or their faculty, have little interest in the CED's events.

Correlation Between the Level of Interest in the CED Events, and the Level of Interest in Technology

The eighth correlation studied was "What correlation is there between the level of interest in the CED events and the level of interest in technology?" The results of this correlation are in Table 21.

TABLE 21 – Correlation Between the Level of Interest in the CED Events and the Level of Interest in Technology			
Faculty Response Group	Adjunct Response Group	Graduate TA Response Group	Department Head Response Group
0.4404	0.4113	-0.1927	0.7334
The numbers shown are the correlations calculated.			

For all the groups except for the graduate teaching assistant response group, there was a somewhat strong connection between the level of interest in the CED events, and the level of interest in technology. On the other hand, the graduate teaching assistant response group showed a slightly negative correlation value. These results are very similar to those found for the first correlation. The scatter plots for these correlations are shown in Figures 18 through 21.

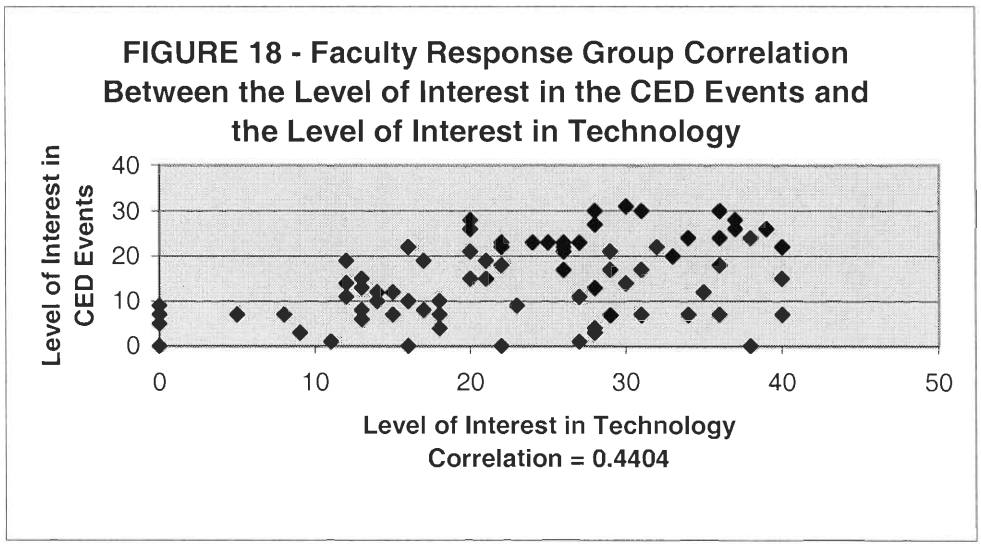


FIGURE 18 - Faculty Response Group Correlation Between the Level of Interest in the CED Events and the Level of Interest in Technology

FIGURE 19 - Adjunct Response Group Correlation Between the Level of Interest in the CED Events and the Level of Interest in Technology

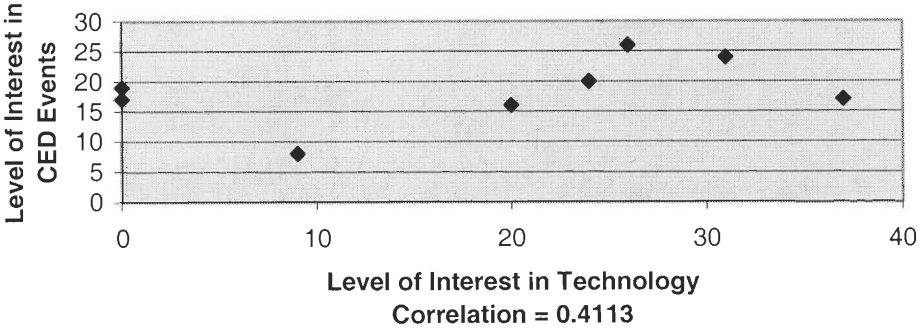
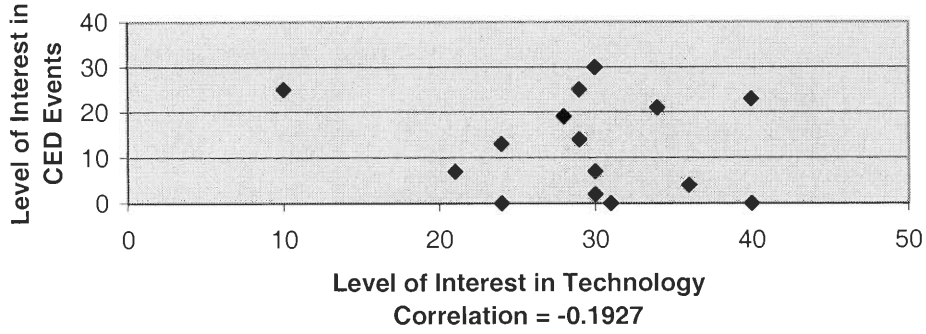
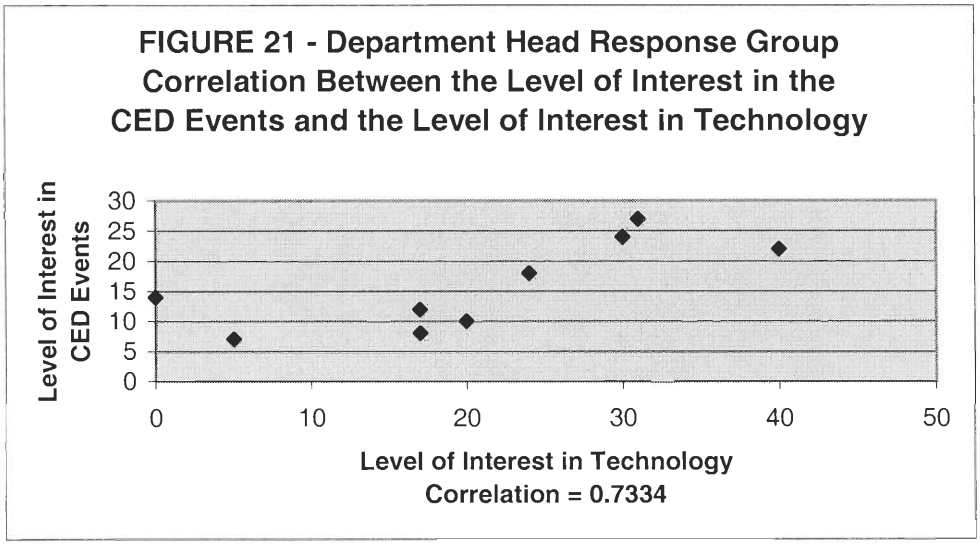


FIGURE 20 - Graduate TA Response Group Correlation Between the Level of Interest in the CED Events and the Level of Interest in Technology





Correlation Between the Level of Interest in Technology, and the Level of Expertise in Technology

The ninth correlation studied was "What is the correlation between the level of interest in technology, and the level of expertise in technology?" Because the department heads were not asked for their level of expertise in technology, this correlation was not studied within that group. The results of the other group's correlations are in Table 22.

TABLE 22 – Correlation Between the Level of Interest in Technology, and the Level of Expertise in Technology

Faculty Response Group	Adjunct Response Group	Graduate TA Response Group
0.6469	0.9192	0.5838
The numbers shown are the correlations calculated.		

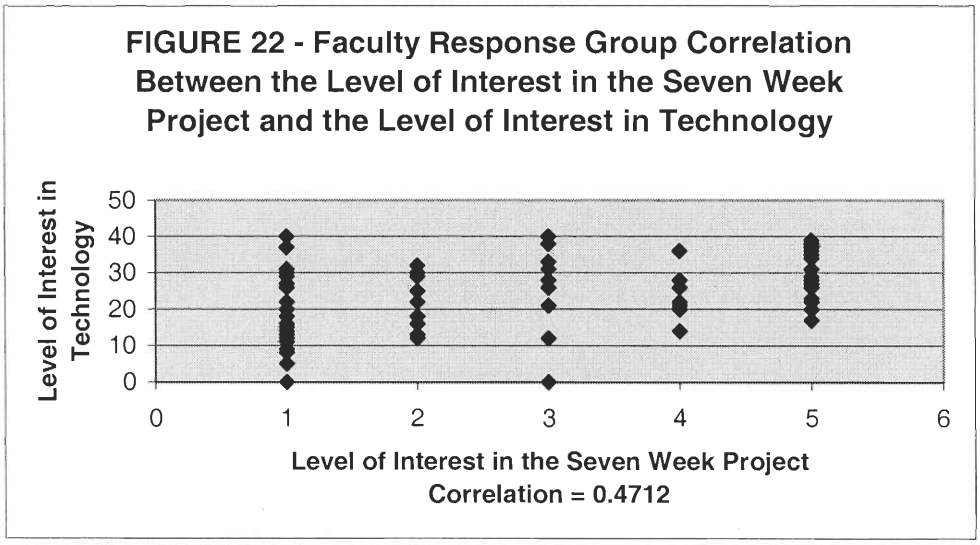
These three correlation values are very high, indicating that there is a strong link between the level of interest in technology, and the level of expertise in technology. This makes sense as those with no interest in a subject will not take the time required to gain expertise in that subject.

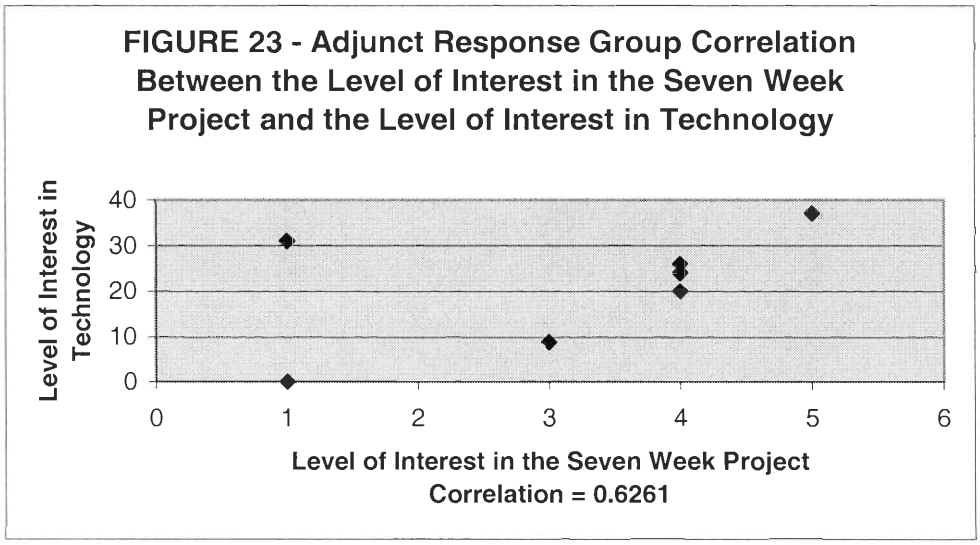
Correlation Between the Level of Interest in the Seven-Week Teaching Project, and the Level of Interest in Technology

The tenth correlation studied was "What correlation is there between the level of interest in the seven-week teaching project, and the level of interest in technology?" This correlation study was only carried out for the faculty and adjunct response groups, as neither the department heads nor the graduate teaching assistants were asked about the seven week teaching project. The results of this correlation are shown in Table 23.

TABLE 23 – Correlation Between the Level of Interest in the Seven-Week Teaching Project, and the Level of Interest in Technology	
Faculty Response Group	Adjunct Response Group
0.4712	0.6261
The numbers shown are the correlations calculated.	

Both of these values are high, implying that those faculty most likely to participate in the seven week teaching project, would also have a high level of interest in technology. The scatter plots for these correlations are shown in Figures 22 and 23.





Correlation Between the Level of Interest in the Seven-Week Teaching Project, and the Level of Expertise in Technology

The eleventh correlation studied was "What is the correlation between the level of interest in the seven-week teaching project, and the level of expertise in technology?" This correlation study was only carried out for the faculty and adjunct response groups, as neither the department heads nor the graduate teaching assistants were asked about the seven week teaching project. The results of this correlation are shown in Table 24.

TABLE 24 – Correlation Between the Level of Interest in the Seven-Week Teaching Project, and the Level of Expertise in Technology	
Faculty Response Group	Adjunct Response Group
0.3637	0.5629
The numbers shown are the correlations calculated.	

Both of these values are high, implying that those faculty most likely to participate in the seven week teaching project, would also have a high level of expertise in technology. The scatter plots for these correlations are shown in Figures 24 and 25.

FIGURE 24 - Faculty Response Group Correlation Between the Level of Interest in the Seven-Week Project and the Level of Expertise in Technology

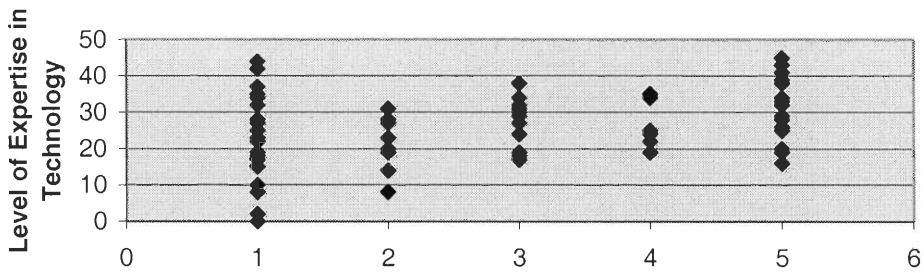
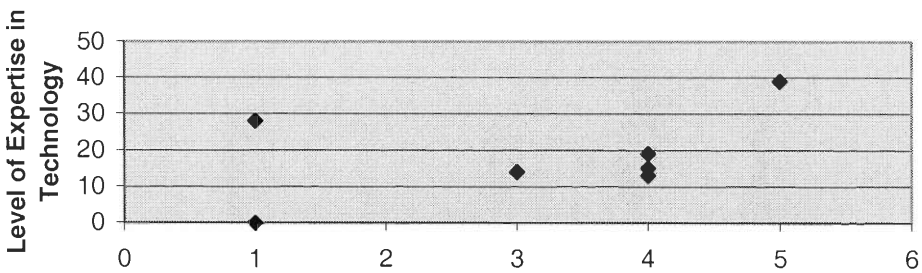


FIGURE 25 - Adjunct Response Group Correlation Between the Level of Interest in the Seven-Week Project and the Level of Expertise in Technology



Discussion

Response Bias

The response rate data shown in the Methodology section of this report indicates that the faculty response groups (faculty response group, adjunct response group, and department head response group) were user biased. This means that the data collected through this project may be skewed in the favor of the CED users' responses. We were expecting the faculty response groups to be user biased since a CED user would be more likely to answer a questionnaire about the CED.

The response rate data shown earlier indicates that the graduate teaching assistant response group was non-user biased. We were not sure what type of response group to expect because logically one would think that a survey about the CED would be answered mostly by CED users. However, we encountered two problems during the course of this project. First, no list of teaching assistants existed at the time of the survey distribution. We had to produce the list through the help of the College Computing Center. There was no way of testing the validity of the list, therefore we knew there would be some error in the analysis, especially when determining response bias. Secondly, the list of teaching assistants who have used the CED was provided to us by the CED. The problem with this list was that it contained the names of all the teaching assistants who had used the CED since its inception. There was no way of going through the list to determine who was still a teaching assistant and who had moved on.

Points of Interest

While entering survey responses, we noticed that some of the respondents circled "No", they had not participated in any CED events, but then checked off events offered

by the CED that they had used. We calculated a percentage for each response group of those respondents who circled "No" and then checked off events they had used. The percentages are shown in Table 25.

TABLE 25 – Percentage of Respondents Who Circled "No" to Their Participation in CED Events, and Then Checked Off Events They Had Used		
Faculty Response Group	Adjunct Response Group	Graduate TA Response Group
22	33	23
Percentage of non-aware CED users.		

These percentages are fairly high, which indicates that many of the respondents have used CED events, and not known they were using a CED event. This shows that the CED should increase its advertising through various means in addition to its current advertising, and be sure that its events are clearly labeled as CED sponsored.

Another point of interest we came upon while analyzing the returned surveys was that the department head responses showed strong negative correlations between their belief that the CED possesses the expertise required to assist them or their faculty, and their number of recommendations to their faculty. This implies that those department heads who highly recommend the CED to their faculty, do not believe that the CED possesses the expertise required to assist them or their faculty. Or, this could imply that those department heads who feel the CED possesses the expertise required to assist them, do not recommend the CED to their faculty. This is intuitively incorrect, so any group who chooses to follow up on this project should further investigate this topic.

Conclusions

Recommendations

From the individual questions and correlations in the Results section, we were able to generalize the following conclusions and recommendations. Although there was much more information gathered than is presented in this section, these points were chosen as they were the most statistically significant.

The Food for Thought Luncheons were by far the most popular events offered by the CED. This is probably because food is served at the luncheons. The least popular service was the Student Observer Program. Not only did the respondents not use the program, they had low levels of interest in it. This would show that events which offer food will most likely have a greater attendance, and that the CED should not expend too much of its assets on promoting the Student Observer Program.

This project introduced the respondents to the possibility of a seven-week independent educational project where faculty would be reimbursed for their time. The faculty and adjunct groups were asked for their level of interest in the project. Both of these response groups showed that at least 33% of them had a level of interest of 4 or higher out of 5. There was a strong correlation between the number of CED events a respondent had used, and the respondent's level of interest in the seven-week teaching project. There was also a strong correlation between the respondent's level of interest in the seven-week teaching project, and the respondent's level of interest and expertise in technology. If the CED chooses to offer the seven-week teaching project to the WPI community, it should expect that a large percentage of those interested in the seven-week teaching project will have used the CED previously. Most of those who show an interest

in the seven-week teaching project will have high levels of interest or expertise in technology.

WPI does not have a teachers committee at this point. All those surveyed during this project were asked for their level of interest in forming a teachers committee. In all four groups surveyed, we found that many of the respondents showed great interest in forming a teachers committee. The faculty and graduate teaching assistant response groups both showed moderately strong correlations between the number of CED events used and the respondent's level of interest in forming a teachers committee. Based on the number of positive responses, we recommend that the CED form a teachers committee. If the CED chooses to pursue this, we found that peer nomination and selecting the winners of the Trustees' Award for Outstanding Teaching were the two most popular ways of forming the teachers committee. The least popular technique for forming the teachers committee would be selecting those professors who are authors of teaching portfolios.

Future Work

Any group that continues this research should follow up on the following issues. The department head response group did not behave according to logic. We found that those department heads who highly recommend the CED to faculty, do not believe the CED possesses the expertise required to assist themselves, or the faculty. We also found that those department heads who do not recommend the CED often, do believe the CED possesses the expertise required to assist themselves, or the faculty. Clearly this does not make sense. Perhaps anyone following up on this project should interview the department heads individually.

If this survey were to be used again, those conducting the research should spend enough time to ensure that the graduate teaching assistant group is accurately identified. We were not able to accomplish this due to time constraints.

Although each college or university's faculty development center is different, some of the information from this project can be useful to them. The surveys created for this project were designed after analyzing surveys from other school's faculty development centers. We offer other colleges and universities our surveys for their reference and analysis. The questions asked of the WPI response groups could be used at almost any college or university. The percentages and correlations we calculated can be used by other schools, possibly the POD network, for comparative purposes.

Completed Objectives

The goals of this project were to report to the CED which of its services are most used, which are least used, and what the faculty would like to see offered in the future from the CED. We showed that the Food for Thought Luncheons are by far the most used and the most popular events offered by the CED. The Student Observer Program was found to be the least used service offered by the CED. The faculty would like to see a seven-week independent educational project offered, as well as having a teachers committee formed.

Appendices

Appendix A1

a.) California State University Fresno (CSUF) letter from Ethelynda Harding to faculty.

b.) CETL Survey.

CALIFORNIA STATE UNIVERSITY • FRESNO

CENTER FOR THE ENHANCEMENT OF TEACHING AND LEARNING

2365 E. San Ramon Avenue
Fresno, California 93740-0068
(209) 278-2819

September 26, 1995

TO: Faculty

FROM: Ethelynda Harding, Director
Center for the Enhancement of Teaching and Learning

RE: Center Activities and Survey of Faculty Interests

The Center for the Enhancement of Teaching and Learning seeks your assistance in carrying out its mission:

> The Center for the Enhancement of Teaching and Learning at California State University, Fresno, provides assistance and resources to support teaching excellence and professional growth. Under the guidance of an advisory board, CETL sponsors programs and consultation designed to enhance instruction and learning; serves as a clearinghouse for information regarding higher education instruction; stimulates discourse among faculty on academic matters; promotes the use of technology in teaching; and encourages the development of grant proposals to support faculty research contributing to effective teaching and learning with a diverse student population.

Among the immediate activities of CETL are:

1. Compiling bibliographies and developing a resource area with useful publications.

2. Assisting faculty in the development of grant proposals relating to teaching and learning.

3. Sponsoring a series of workshops and symposia in a variety of areas.

4. On even-numbered Wednesdays, a table will be reserved at the University Restaurant for "Talking about Teaching." Please join us for relaxed discussions of matters concerning teaching and learning.

5. CETL will institute a series of more structured discussions of specific instructionally-related topics. These will begin with a 15 minute presentation by a colleague with experience or special knowledge in the area, followed by general discussion of the topic. This will provide the opportunity to see how others on campus are dealing with the challenges that you face in the classroom.

Please complete the survey on the reverse of this memo. Your responses will direct the discussion sessions and help determine workshop topics. If you have questions about CETL, need assistance or resources (books, literature searches, etc.) to improve instruction or develop grant proposals, or have suggestions for other CETL activities, call me at 278-2819 or email me at lindah.

cc: Deans, Department Chairs

Please check the appropriate boxes and return this survey to CETL, MS 68.

Name _____ email _____ Mail Stop _____

Preferred meeting day and time: _____

Topic	Interested	Could present	Comments
Team teaching			
Large lectures			
Assessing student learning			
Writing and grading examinations			
Evaluating student writing			
Experiential learning			
Field trips			
Undergraduate research			
Service-learning			
Internships			
Collaborative learning			
Encouraging student discussion			
Student learning styles			
Strategies for the heterogeneous classroom			
Assisting the learning disabled student			
The difficult student			
Mentoring faculty			
Mentoring students			
What is an "A"?			
Student use of computers			
Teaching with simulations			
Using multimedia in the classroom			
Supervising teaching assistants			

Please attach additional topic suggestions.

CETL Survey

In order to plan next semester's activities, CETL needs to know your professional development interests and needs. Please indicate the professional development activities that interest you.

Teaching and Learning Circles:

TLCs are groups of faculty (or faculty and staff) that meet regularly to discuss a topic of common interest. This semester's TLCs have discussed Technology in the Classroom, Large Lectures, and Experiential Learning. Please list topics you might attend a TLC to discuss:

Workshops:

_____ Classroom Assessment Techniques (monitoring student learning to enhance instructional effectiveness)

_____ Assessing Student Learning (exams, etc.)

_____ Managing Student Groups (cooperative learning, student teams, etc.)

_____ Group Problem Solving (for productive committees, department meetings)

_____ Adapting the Lecture for Active Learning

_____ Writing Across the Disciplines (effective assignments, controlling paperwork)

_____ Time Management

_____ Others:

Additional suggestions? Please use the back of the form.

Contact Information (optional):

Name: _____

Phone: _____ MS _____ email _____

CETL

Please return to CETL at MS 68. For information, call 82819.

1996-97 Faculty Workshops

Appendix A2

Wright State University questionnaire.

Wright State University

University Center for
Teaching and Learning
062 Rike Hall
3640 Colonel Glenn Hwy.
Dayton, Ohio 45435-0001
513/873-4522
FAX 513/873-2464

October 14, 1996

Dear Colleague,

As a part of our assessment, we have developed the attached questionnaire. The questionnaire focuses on the programs and activities sponsored by the Center for Teaching and Learning at Wright State University. The questionnaire should require approximately 15 minutes of your time.

Please return the completed questionnaire to the Center for Teaching and Learning by October 31, 1996. If you have any questions, please contact the Center for Teaching and Learning x4522.

Thank you for your cooperation and input!

Sincerely,

Jeanne Ballantine

Jeanne Ballantine

3. Please rate the following teaching and learning activities in terms of importance to your teaching responsibilities (with 1 being Most Important and 7 being Least Important)

( ) Programs which provide teaching tips and techniques
( ) Programs which focus on theory and pedagogy
( ) Programs in which participants discuss teaching concerns
( ) Programs which focus on diversity issues
( ) Programs in which participants apply concepts related to teaching and learning
( ) Programs which teach assessment techniques
( ) Resources that provide information on teaching and learning

Comments:

4. Please give example(s) of how Center activities and resources have improved

Your teaching:

Students' learning:

Other activities:

5. Has participation in Center activities/resources improved your teaching and/or advising relationship with students?

Yes___ No___ Not applicable___

Example(s):

12. I am a better teacher because of the availability of the Center and its programs.

Yes__ Somewhat__ No__ I don't know__

13. Please provide the following demographic information

Academic unit_____

Rank_____ Tenure: Yes ( ) No ( )

Sex: M ( ) F ( )

Number of years as a Wright State faculty member

0-5 ( ) 6-10 ( ) 11-15 ( ) 16-20 ( ) 21+ ( )

14. What percentage of time, during an academic quarter, do you spend in each of the following areas?

____ Classroom teaching
____ Research and professional writing
____ Advising students
____ Class preparation, grading, developing teaching materials, etc.
____ Professional development, conferences, etc.
____ University governance, college and department committees
____ Community service, professional service, etc.
____ External consulting activities
____ Other _____
100% TOTAL

Please add additional comments to the back of the attached cover letter.

THANK YOU FOR YOUR HELP!!

Please return the survey to:

Center for Teaching and Learning
062 Rike Hall

Appendix A3

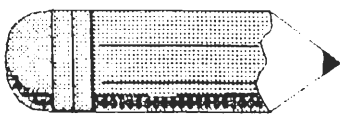
The CETL Marketing Research Project.

The Center for Teaching and Learning

Marketing Research Project

Prepared By:
Melissa Burgess
Kris Ochenski
Christa Bell
Ashley Cothron

April 26, 1995



The Center for Teaching and Learning

Please complete no later than March 27, 1995. Thank you.

1. What is your current employment status? (Check one below.)
   ____University Faculty
   ____Graduate Teaching Assistant

2. Are you: ____Full-time ____Part-time

3. Are you: ____On-campus ____Off-campus

4. Please indicate the college in which you are employed.
   ____Business Administration
   ____Community College
   ____Ogden College of Science, Technology, and Health
   ____Potter College of Arts, Humanities, and Social Sciences
   ____College of Education and Behavioral Sciences

5. What would be the best day for you to utilize resources offered by the Center for Teaching and Learning? (Check one below.)

   Mon. ___ Tues. ___ Wed. ___ Thurs. ___ Fri. ___ Sat. ___ Sun. ___

6. On a scale of 1-5, with 5 being "most convenient across semesters" and 1 being "least convenient across semesters," please rate the following time slots for attending workshops and seminars offered by the Center for Teaching and Learning. (Circle one for each below)

	Least Convenient				Most Convenient
8:00AM - 9:00AM	1	2	3	4	5
9:15AM - 10:15AM	1	2	3	4	5
10:30AM - 11:30AM	1	2	3	4	5
11:45AM - 12:45PM	1	2	3	4	5
1:00PM - 2:00PM	1	2	3	4	5
2:15PM - 3:15PM	1	2	3	4	5
3:30PM - 4:30PM	1	2	3	4	5
After 4:30PM	1	2	3	4	5

7. On a scale of 1-5, with 5 being "very effective" and 1 being "not at all effective," please indicate how effective each of the following is in reaching *you currently.* (Circle one for each below.)

	Not at all Effective				Very Effective
Personal Flyers	1	2	3	4	5
Resource Fair	1	2	3	4	5
CTL Newsletter	1	2	3	4	5
Posters by the mailboxes	1	2	3	4	5
Booklets	1	2	3	4	5

8. On a scale of 1-5, with 5 being "very effective" and 1 being "not at all effective," please indicate how effective each of the following is in *potentially* reaching you. (Circle one for each below.)

	Not at all Effective				Very Effective
Computer Bulletin Board	1	2	3	4	5
Herald	1	2	3	4	5
E-Mail	1	2	3	4	5
Fax	1	2	3	4	5
On-Campus	1	2	3	4	5
CTL Newsletter	1	2	3	4	5
WKYU-FM (Radio)	1	2	3	4	5
Other_____ (please specify)	1	2	3	4	5

9. Of *the existing* resources offered at the Center for Teaching and Learning, please indicate the degree of importance of each resource to you. (Circle one for each below.)

	Not at all Important				Very Important
Lap Top Check Out	1	2	3	4	5
Computer Services	1	2	3	4	5
Books/Readings	1	2	3	4	5
Video/Self Taping	1	2	3	4	5
Scanner	1	2	3	4	5
Clip Art	1	2	3	4	5
Workshops	1	2	3	4	5
Transparencies	1	2	3	4	5
Newsletter	1	2	3	4	5
Booklets	1	2	3	4	5

10. Of the *potential* resources offered by the Center for Teaching and Learning, please check those that would be of service to you. (Check all that apply.)

Fax ___ E-Mail ___ Color Printer ___ Computer Software ___
Capacity to provide student photos ___ Other (Please list) _____

11. Approximately how often do you utilize the resources offered by the Center?

____Not at all ____1-2 times/month ____3-5 times/month
____more than 5 times/month

12. What are some suggested topics for workshops and seminars that the Center for Teaching and Learning could offer that would be of interest to you?

_____

_____

_____

13. What are some suggested topics for booklets for the Center for Teaching and Learning that would be of interest to you?

_____

_____

_____

Thank you for your time and cooperation.

Please return to your Departmental Secretary.

Appendix A4

Western Michigan University Faculty Development Interest Survey

WESTERN MICHIGAN UNIVERSITY

Dr. Mary Ann Bowman
Director
Faculty Development Services
Kalamazoo, Michigan 49008-5198
Office: 616 387-5305
Home: 616 372-2173 FAX: 616 387-6048
E-mail: maryann.bowman@wmich.edu
URL: http: / / www.wmich.edu / facdev

Western Michigan University

Faculty Development Interest Survey

Please rate your interest in a program on these topics by circling the appropriate number.

Topic	Great Interest	High Interest	Moderate Interest	Little Interest	No Interest
INSTRUCTIONAL TOPICS					
COURSE MANAGEMENT					
1. Course planning/design	5	4	3	2	1
2. Grading	5	4	3	2	1
3. Writing the syllabus	5	4	3	2	1
4. Teaching large classes	5	4	3	2	1
5. Writing examinations	5	4	3	2	1
STUDENTS					
6. Adult learners	5	4	3	2	1
7. Academic dishonesty	5	4	3	2	1
8. Multicultural diversity issues	5	4	3	2	1
9. Classroom discipline	5	4	3	2	1
10. Student learning styles	5	4	3	2	1
11. Informal learning assessments	5	4	3	2	1
TEACHING STRATEGIES					
12. Cooperative learning strategies	5	4	3	2	1
13. Active learning	5	4	3	2	1
14. Critical thinking	5	4	°3	2	1
15. Effective discussions	5	4	3	2	1
16. Lecturing	5	4	3	2	1
17. Performance techniques	5	4	3	2	1
18. Public speaking techniques	5	4	3	2	1
RESEARCH/CAREER TOPICS					
19. Writing for publication	5	4	3	2	1
20. Conducting qualitative research	5	4	3	2	1
21. Finding publication sources	5	4	3	2	1
22. Presenting effectively at meetings	5	4	3	2	1

(OVER)

PERSONAL TOPICS	Great Interest	High Interest	Moderate Interest	Little Interest	No Interest
23. Dual-career family issues	5	4	3	2	1
24. Balancing prof. & personal lives	5	4	3	2	1
25. Parenting issues	5	4	3	2	1
26. Retirement	5	4	3	2	1
27. Career renewal	5	4	3	2	1
MISCELLANEOUS					
28. Librarian classroom visits	5	4	3	2	1

29. Other topics not listed: _____

What do you perceive as the primary incentive(s) for participating in a faculty development program? (Circle all that apply)

30. Professional growth/development/interest
31. Discussions with faculty colleagues
32. Meeting colleagues from other disciplines
33. Opportunity to reflect on teaching practice
34. Practical ideas for classroom implementation
35. Obtaining information for career development/success
36. Other (*please specify*) _____

Please indicate your interest in any of the following by circling the appropriate numbers.

37. Being part of an ongoing group to discuss teaching experiences and concerns.
38. Being part of an ongoing group to discuss efforts in using new teaching methodologies.
39. Being part of an ongoing book group to study/discuss the scholarship of teaching & learning.
40. Being part of an ongoing group to study/discuss issues about the future of higher education.
41. Being part of an ongoing group to work on and discuss writing projects.
42. Being part of an ongoing group to work on and discuss research projects.
43. Attending a week-long spring or summer workshop on teaching.
44. Being assigned a faculty mentor.
45. Serving as a mentor to a new faculty member.

If you have indicated interest in any of these topics and would like to be contacted about it, please provide the following information:

Name _____ Dept. _____
Phone No. _____ Electronic Mail Address _____

Note: If you would be interested in presenting a program on a topic related to teaching and learning (e.g., your use of groups, new technology, etc.), please provide your:

Name _____ Dept. _____
Phone No. _____ Electronic Mail Address _____
Program Topic _____

Appendix A5

Northampton Community College – Faculty Development Interest Survey

NORTHAMPTON COMMUNITY COLLEGE - FACULTY DEVELOPMENT INTEREST SURVEY

Please rate your level of interest in these topics by circling either w (would like a participatory, hands-on Workshop), p (would like a Presentation/lecture on this topic), i (would like Information in the form of handouts, or written resources made available), or n (I have No interest in this topic).

INSTRUCTIONAL TOPICS	Workshop	Presentation	Information	No Interest	Comments
COURSE MANAGEMENT					
1. Course planning/design	w	p	i	n	
2. Grading	w	p	i	n	
3. Writing the syllabus	w	p	i	n	
4. Teaching large classes (>20)	w	p	i	n	
5. Writing/grading examinations	w	p	i	n	
6. Writing/grading assignments	w	p	i	n	
7. Encouraging participation	w	p	i	n	
8. The heterogeneous classroom	w	p	i	n	
9. Multimedia in the classroom	w	p	i	n	
STUDENTS					
10. Adult learners	w	p	i	n	
11. Academic dishonesty	w	p	i	n	
12. Multicultural diversity issues	w	p	i	n	
13. Classroom discipline	w	p	i	n	
14. Student learning styles	w	p	i	n	
15. Informal learning assessments	w	p	i	n	
16. Evaluating student writing	w	p	i	n	
17. Assisting LD students	w	p	i	n	
18. Dealing with difficult students	w	p	i	n	
TEACHING STRATEGIES					
19. Cooperative learning strategies	w	p	i	n	
20. Active/Experiential learning	w	p	i	n	
21. Critical thinking	w	p	i	n	
22. Effective discussions	w	p	i	n	
23. Lecturing	w	p	i	n	
24. Use of computers	w	p	i	n	
25. Teaching with simulations	w	p	i	n	
26. Performance/public speaking	w	p	i	n	
techniques	w	p	i	n	
RESEARCH/CAREER TOPICS					
27. Writing for publication	w	p	i	n	
28. Conducting qualitative research	w	p	i	n	
29. Finding publication sources	w	p	i	n	
30. Effective research presentations	w	p	i	n	
31. Mentoring partnerships	w	p	i	n	
MISCELLANEOUS					
32. Librarian classroom visits	w	p	i	n	
33. Other topics not listed					

Appendix A6

Surveys and Cover Letters used in this IQP

Dear Faculty Member,

You have received this anonymous survey as part of a needs assessment IQP done in conjunction with the Center for Educational Development at WPI. The CED was founded in 1996 and due to its recent formation, has not yet accrued enough information concerning its users' needs. The goal of this survey is to determine which services of the CED you find most useful, and what other teaching support and services you would like to see offered.

Please take your time when answering the following questionnaire. The entire survey should not require more than ten minutes of your time. Your feedback is greatly appreciated, and is essential for the CED to continue providing support for the enhancement of teaching and learning at WPI.

Once you have completed this questionnaire, please submit it to mailbox 2343 via inter-campus mail by March 1, 2000.

Thank you for your time and cooperation.

Sincerely,
Joseph Golec
George Stifo
John Tassinari
Judith Miller
Director of CED

Faculty Survey

Q1. Did you know the Center for Educational Development (CED) existed before receiving this questionnaire? Yes / No

Q2. Have you ever participated in a CED faculty development program or event? Yes / No

Please feel free to comment below.

Q3. Which of the CED's services listed below have you used and on a scale of 1 to 5 how interested are you in using each service? (1 – not interested, 5 – highly interested)

Service	Used	Interested in
Mentoring Program for New Faculty	Yes / No	1 2 3 4 5
Student Observer Program	Yes / No	1 2 3 4 5
Teaching Consultations	Yes / No	1 2 3 4 5
Cooperative Learning & College Teaching Newsletter	Yes / No	1 2 3 4 5
Summer Educational Film Festival	Yes / No	1 2 3 4 5
Food for Thought Lunches	Yes / No	1 2 3 4 5
Seminars and Longer Workshops on Educational Topics (e.g. Teaching Portfolios, Program Assessment Plans, Learning Styles)	Yes / No	1 2 3 4 5

Q4. Do you feel the CED possesses the expertise required to effectively assist you as a faculty member? Yes / No

Please feel free to comment below.

Q5. Please rate your interest in taking part in a seven-week independent educational project in exchange for a course release and travel money.

Not at All Interested 1 2 3 4 5 Extremely Interested

Q6. How interested are you in having the CED develop a teachers committee?

(A committee to assist the CED with regular services and special projects.)

Not at All Interested 1 2 3 4 5 Extremely Interested

Q7. Which of the following selection processes would you recommend for forming a teachers committee? (check left box next to those that apply)

	Self Nomination		Authors of Teaching Portfolios
	Peer Nomination		A Selection Committee
	Winners of the Trustees' Award for Outstanding Teaching		Other: Please List Below

Q8. On a scale of 1 to 5 how interested are you in using each of the technologies listed below (1 – not interested, 5 – highly interested), and what is your relative level of expertise (1 – novice, 5 – expert)?

Technology	**Level of Interest**	**Level of Expertise**
PowerPoint Use in Classroom	1 2 3 4 5	1 2 3 4 5
Internet Use in Classroom	1 2 3 4 5	1 2 3 4 5
Internet Use for Research	1 2 3 4 5	1 2 3 4 5
Lap Top Use in Classroom	1 2 3 4 5	1 2 3 4 5
Online Courses	1 2 3 4 5	1 2 3 4 5
Distant Learning Courses	1 2 3 4 5	1 2 3 4 5
Course Info (Blackboard)	1 2 3 4 5	1 2 3 4 5
High Bandwidth Internet Access	1 2 3 4 5	1 2 3 4 5

Q9. Please list any suggestions, comments, or ideas for the CED in the space below.

Dear WPI Teaching Assistant,

You have received this anonymous survey as part of a needs assessment IQP done in conjunction with the Center for Educational Development at WPI. The CED was founded in 1996 and due to its recent formation, has not yet accrued enough information concerning its users' needs. The goal of this survey is to determine which services of the CED you find most useful, and what other teaching support and services you would like to see offered.

Please take your time when answering the following questionnaire. The entire survey should not require more than ten minutes of your time. Your feedback is greatly appreciated, and is essential for the CED to continue providing support for the enhancement of teaching and learning at WPI.

Once you have completed this questionnaire, please submit it to mailbox 2343 via inter-campus mail by March 1, 2000.

Thank you for your time and cooperation.

Sincerely,

Joseph Golec
George Stifo
John Tassinari
Judith Miller
Director of CED

Teaching Assistant Survey

Q1. Did you know the Center for Educational Development (CED) existed before receiving this questionnaire? Yes / No

Q2. Have you ever participated in a CED faculty development program or event? Yes / No

Please feel free to comment below.

Q3. Which of the CED's services listed below have you used and on a scale of 1 to 5 how interested are you in using each service? (1 – not interested, 5 – highly interested)

Service	Used	Interested in
Mentoring Program for New Faculty	Yes / No	1 2 3 4 5
Student Observer Program	Yes / No	1 2 3 4 5
Teaching Consultations	Yes / No	1 2 3 4 5
Cooperative Learning & College Teaching Newsletter	Yes / No	1 2 3 4 5
Summer Educational Film Festival	Yes / No	1 2 3 4 5
Food for Thought Lunches	Yes / No	1 2 3 4 5
Seminars and Longer Workshops on Educational Topics (e.g. Teaching Portfolios, Program Assessment Plans, Learning Styles)	Yes / No	1 2 3 4 5

Q4. Do you feel the CED possesses the expertise required to effectively assist you as a teaching assistant? Yes / No

Please feel free to comment below.

Q5. How interested are you in having the CED develop a teachers committee?

(A committee to assist the CED with regular services and special projects.)

Not at All Interested 1 2 3 4 5 Extremely Interested

Q6. Which of the following selection processes would you recommend for forming a teachers committee? (check left box next to those that apply)

	Self Nomination		Authors of Teaching Portfolios
	Peer Nomination		A Selection Committee
	Winners of the Trustees' Award for Outstanding Teaching		Other: Please List Below

Q7. On a scale of 1 to 5 how interested are you in using each of the technologies listed below (1 – not interested, 5 – highly interested), and what is your relative level of expertise (1 – novice, 5 – expert)?

Technology	**Level of Interest**	**Level of Expertise**
PowerPoint Use in Classroom	1 2 3 4 5	1 2 3 4 5
Internet Use in Classroom	1 2 3 4 5	1 2 3 4 5
Internet Use for Research	1 2 3 4 5	1 2 3 4 5
Lap Top Use in Classroom	1 2 3 4 5	1 2 3 4 5
Online Courses	1 2 3 4 5	1 2 3 4 5
Distant Learning Courses	1 2 3 4 5	1 2 3 4 5
Course Info (Blackboard)	1 2 3 4 5	1 2 3 4 5
High Bandwidth Internet Access	1 2 3 4 5	1 2 3 4 5

Q8. Please list any suggestions, comments, or ideas for the CED in the space below.

Dear WPI Department Head,

You have received this anonymous survey as part of a needs assessment IQP done in conjunction with the Center for Educational Development at WPI. The CED was founded in 1996 and due to its recent formation, has not yet accrued enough information concerning its users' needs. The goal of this survey is to determine which services of the CED you find most useful, and what other teaching support and services you would like to see offered.

Please take your time when answering the following questionnaire. The entire survey should not require more than ten minutes of your time. Your feedback is greatly appreciated, and is essential for the CED to continue providing support for the enhancement of teaching and learning at WPI.

Once you have completed this questionnaire, please submit it to mailbox 2343 via inter-campus mail by March 1, 2000.

Thank you for your time and cooperation.

Sincerely,

Joseph Golec
George Stifo
John Tassinari
Judith Miller
Director of CED

Department Head Survey

Q1. Did you know the Center for Educational Development (CED) existed before receiving this questionnaire? Yes / No

Q2. Have you ever participated in a CED faculty development program or event? Yes / No

Please feel free to comment below.

Q3. Which of the CED's services listed below have you recommended to your faculty? On a scale of 1 to 5 indicate how interested you are in using each service. (1 – not interested, 5 – highly interested)

Service	Recommended	Interested in
Mentoring Program for New Faculty	Yes / No	1 2 3 4 5
Student Observer Program	Yes / No	1 2 3 4 5
Teaching Consultations	Yes / No	1 2 3 4 5
Cooperative Learning & College Teaching Newsletter	Yes / No	1 2 3 4 5
Summer Educational Film Festival	Yes / No	1 2 3 4 5
Food for Thought Lunches	Yes / No	1 2 3 4 5
Seminars and Longer Workshops on Educational Topics (e.g. Teaching Portfolios, Program Assessment Plans, Learning Styles)	Yes / No	1 2 3 4 5

Q4. Do you feel the CED possesses the expertise required to effectively assist you as a department head? Yes / No

Please feel free to comment below.

Q5. Do you feel the CED possesses the knowledge required to effectively assist your department's faculty? Yes / No

Please feel free to comment below.

Q6. How interested are you in having the CED develop a teachers committee?
(A committee to assist the CED with regular services and special projects.)
Not at All Interested 1 2 3 4 5 Extremely Interested

Q7. Which of the following selection processes would you recommend for forming a teachers committee? (check left box next to those that apply)

	Self Nomination		Authors of Teaching Portfolios
	Peer Nomination		A Selection Committee
	Winners of the Trustees' Award for Outstanding Teaching		Other: Please List Below

Q8. On a scale of 1 to 5 how interested are you in having your department's faculty become more familiar with each of the technologies listed below (1 – not interested, 5 – highly interested)?

Technology	**Level of Interest**	**Not Applicable**
PowerPoint Use in Classroom	1 2 3 4 5	
Internet Use in Classroom	1 2 3 4 5	
Internet Use for Research	1 2 3 4 5	
Lap Top Use in Classroom	1 2 3 4 5	
Online Courses	1 2 3 4 5	
Distant Learning Courses	1 2 3 4 5	
Course Info (Blackboard)	1 2 3 4 5	
High Bandwidth Internet Access	1 2 3 4 5	

Q9. Please list any suggestions, comments, or ideas for the CED in the space below.

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