

1992

The Critical Elements of Collaborative Consultation

Kurt T. Kruger

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The Critical Elements of Collaborative Consultation

(TITLE)

BY

Kurt T. Kruger

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

Master of Science

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

1992

YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
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ABSTRACT

The purpose of this study was to identify the critical elements necessary for speech-language pathologists to implement an effective collaborative consultation model. A survey was mailed to 300 ISHA member speech-language pathologists working in Illinois schools. The survey contained elements of collaborative consultation originally identified by researchers and professionals in the field of communication disorders and sciences. Those elements identified by the survey respondents as being most critical were, (a) planning time, and (b) acceptance and support of administrators, teachers, and parents. The elements on the survey instrument ranked significantly lower than the rest were, (a) time to observe those involved in the collaborative effort, (b) both the individuals and organization receive assistance and attention to deal with problems, and (c) evaluating alternatives to anticipate possible consequences, narrow and combine choices, and assign priorities. The results of the study and their clinical implications are discussed.

DEDICATION

This thesis is dedicated to the Lord. Praise the Lord from whom all blessings flow.

ACKNOWLEDGMENTS

I would like to recognize and thank several people who have contributed to the completion of this thesis.

Robert Augustine has brought constructive suggestions, positive direction, and a personal commitment to the researcher's thesis and graduate career. His enthusiasm for research was contagious.

Mary Anne Hanner and Jill Nilsen each contributed by sacrificing their time and offering their insight as committee members. Their support is deeply appreciated.

John Best graciously provided survey design assistance.

Rebecca Cook, Jean Smitley, and Rebecca Trammel drew upon their expertise and experience to consolidate the collaborative consultation elements.

David Dodd played a key role in interpreting and analyzing the survey data. His willingness to help was outstanding.

My parents always provided words of encouragement and support which allowed me to put problems in perspective.

Finally, I want to thank my wife Dawn whose love, patience, and understanding were seemingly limitless.

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CHAPTER 1
INTRODUCTION

Collaborative consultation is a speech-language service delivery model which integrates the services of speech-language-hearing professionals with other service providers within the context of the classroom. While collaborative consultation has been acknowledged and implemented by speech-language pathologists, research to identify and define the critical elements for efficacious implementation of service delivery is not available.

This study was designed to identify and define the consulting skills speech-language pathologists believe are required to effectively implement collaborative service delivery. In order to collect the data, a review of the literature was conducted to identify expected competencies. Expected competencies were identified by Friend (1984), Idol-Maestas and Ritter (1985), Block (1990), West and Cannon (1988), Frassinelli, Superior, and Meyers (1983), and Loucks-Horsley and Cox (1984). Existing data of collaborative skills were condensed and organized into a survey. The survey was mailed to a random sample of practitioners in the Illinois schools to determine which elements were

most highly ranked. In addition, observational data of consultation service delivery was collected and informally observed to identify which elements were typically implemented in existing programs.

The data collected provided the basis for an operational definition of collaborative consultation. The data will serve as a guideline for professionals seeking guidance in using collaborative designs. The data will also serve as a foundation for improving the quality of collaborative treatment and identifying submodels of the design.

CHAPTER 2
LITERATURE REVIEW

The Collaborative Consultation Model (referred to henceforth as CCM) is an alternative to traditional pull-out models of language intervention. The CCM allows the speech-language pathologist, the classroom teacher, and other primary educators to design and implement speech-language treatment activities within the classroom context. This technique is receiving increased attention and implementation from many speech-language professionals working in the schools and agencies employing school-based professionals. The Illinois State Board of Education recognized CCM as a viable service delivery model by listing it in the recently published Speech and Language Technical Assistance Manual (Illinois State Board of Education [ISBE], 1990). Secord (Ed. 1990) devoted the entire first annual issue of Best Practices in School Speech-Language Pathology to CCM programs in the schools. Augustine and Hanner (1990), Block (1990), and DeBoer (1989) have all given inservices regarding CCM and provided guidelines for its delivery. A recent study by Wilcox, Kouri, and Caswell (1991) found that children receiving classroom-based treatment demonstrated more

productive use of target words in their homes than children receiving traditional individual treatment. This is the only known efficacy study of its kind.

Differences exist among researchers regarding both the critical elements and functional definitions of CCM. Idol, Paolucci-Whitcomb, and Nevin (1986) defines CCM as an interactive process. Idol et al. (1986) stated that CCM is the integration of expertise of different professionals to provide an agreed upon curriculum for meeting a child's educational needs. Jointly identified solutions to the child's needs are different from those that would have been generated independently.

Frassinelli et al. (1983) define CCM as a three-person chain of service. According to Frassinelli et al. (1983), the consultant's role is to influence the caregiver so that the client's needs are met. The definition provided by Frassinelli et al. (1983) is similar to Idol et al. (1986) in that the child's needs are met by communicating with other individuals rather than independently providing treatment. The differences appear to be in the specific role of the consultant. According to Idol et al. (1986), there is mutual integration of ideas to resolve a child's needs. Frassinelli et al. (1983) states that the consultant

guides a primary care provider.

The American Speech-Language Hearing Association (ASHA) defines CCM as an option available to serve the communicative needs and environment of the student (Asha, 1983). According to ASHA's (1983) interpretation of CCM, the speech-language pathologist consults with as many individuals as necessary but does not see the child except for assessment and demonstration. Direct service is carried out by professionals other than the speech-language pathologist. ASHA (1983) cites students who are homebound, students with multiple handicaps, and young students who can best be served in their natural environment as candidates for this model. ASHA's (1983) position is similar to that of Frassinelli et al. (1983) which implies more training of other professionals by the speech-language pathologist rather than the Idol et al. (1986) definition of integrating peoples' expertise and ideas to meet the child's needs.

The three sources providing a definition of CCM agree that the child's needs are met through the speech-language pathologist and at least one other individual sharing the responsibility for the program. The sources differ in that Frassinelli et al. (1983) and ASHA (1983) suggest that others provide the direct service while

Idol et al. (1986) indicates that the speech-language pathologist may be involved in direct service.

Differences also exist among researchers concerning the cardinal elements of CCM. Idol et al. (1986) specifies four elements needed for successful implementation of CCM. These include (a) team ownership of the identified problem so that the collaborators share the responsibility for the programs success or failure, (b) recognition of individual differences in developmental progress, (c) consistent application of reinforcement principles and practices, and (d) data-based decisions through a functional analysis of behaviors.

Block (1990) cites ten elements needed to establish a CCM compared to Idol's (1986) four elements. They are, (a) acceptance of CCM by administrators, teachers, and parents, (b) start-up time, (c) planning time, (d) classroom observation, (e) other observations (i.e., lunchroom, playground), (f) curriculum assessment, (g) materials assessment, (h) hidden curriculum assessment (i.e., anything that the other special education students and regular education students know about functioning in the classroom and school that the communicatively disordered students do not know), (i)

teaching styles assessment, and (j) resources assessment. Moreover, Block (1990) specifically identifies the speech-language pathologist's role of consultant as (a) meeting with regular and/or special educators to mutually plan classroom-based programs, including pre-assessment, intervention, and post-assessment, (b) providing speech-language services through classroom-based lessons, (c) participating in planning of follow-up lessons to be carried out by the classroom teacher and/or support personnel, and (d) participating in home programs or peer tutoring programs.

Frassinelli et al. (1983) state three elements of CCM. They are (a) the belief that by working indirectly through teachers, the speech-language pathologist can help children, (b) a commitment to a collaborative rather than an authoritarian relationship with the teachers, and (c) a commitment to the collection and analysis of data for the management of children's communication handicaps.

A paper by Loucks-Horsley and Cox (cited in Furguson, 1991) suggest eight elements needed for implementation of CCM. They are (a) define the specific responsibilities of the SLP and teachers involved, what

the teachers will do differently, and the benefit the students will derive from the change, (b) observe those involved in the collaborative effort, (c) secure the commitment of the administration, (d) both the individuals and organization need assistance and attention to deal with problems, (e) teachers who are the opinion leaders must demonstrate support for the model, (f) training by credible professionals with practical know-how is essential, (g) support with immediate access to resources and hands-on materials to assist implementation is necessary, (h) for collaborative teaching to become "institutionalized," it must be written into the curriculum, the budget, or someone's job description.

Several studies have attempted to identify the critical elements of the consultation process that is a part of the CCM. Friend (1984) attempted to identify the consulting skills educators expect resource teachers to possess using a survey instrument. Friend (1984) found that systematically evaluating intervention to determine effectiveness received the most positive responses, whereas conducting inservice training for regular education teachers received the fewest positive responses.

Idol-Maestas and Ritter (1985) developed a questionnaire listing 34 skills important for resource/consulting teacher positions. Those skills rated highly by the respondents were the ability to (a) assess academic skills, (b) implement curriculum-based assessments, (c) participate in staffing conferences, (d) develop written Individual Educational Plans, (e) generate contingency systems, (f) design and use data collection and charting systems, (g) make program decisions based on data, (h) teach to specified instructional objectives, (i) describe special education services to parents, (j) train noncertified personnel, and (k) report pupil progress to parents.

West and Cannon (1988) similarly attempted to identify the essential CCM elements for regular and special educators. The elements which received the highest ratings included skills in interactive communication, collaborative problem solving, and interpersonal skills.

All the researchers relied on thorough reviews of the literature and interdisciplinary expert panelists to synthesize their lists of critical elements. The respondents were then requested to rank the lists of predetermined elements. Only West and Cannon (1988)

requested the respondents to indicate any additional necessary elements not found on the survey instrument.

All of the previously discussed studies present lists of elements determined to be imperative for the implementation of CCM. However the research fails to prove that any of the elements are being implemented by educators. In addition, the present studies are limited because they fail to focus specifically on speech-language pathologists and their role during implementation and intervention.

The differences among the CCM elements clearly indicates a lack of uniformity regarding the critical elements of CCM. In order for school-based speech-language pathologists to more effectively serve their students using the collaborative consultation model, an objective method of determining the critical elements of this model and generating an operational definition of this technique is required.

The purpose of this descriptive study is to accomplish two tasks.

1. To collect survey data from a random sample of speech-language pathologists working in Illinois schools to determine the critical elements.

2. To compare the survey data to the available literature in order to provide an operational definition of collaborative consultation.

CHAPTER 3

METHOD

Survey Respondents

The names and addresses of survey respondents were obtained by contacting the Illinois Speech-Language-Hearing Association (ISHA) and requesting the names of those members currently employed by a school system. The survey respondents included 300 speech-language pathologists working in Illinois schools randomly selected by computer at the ISHA headquarters in Springfield, Illinois.

Survey Construction

Fifty elements were initially identified by Block (1990), Frassinelli et al. (1983), Friend (1984), Idol et. al. (1986), Idol-Maestas and Ritter (1985), Loucks-Horsley and Cox (1984), and West and Cannon (1988). The elements taken from Friend (1984), Idol-Maestas and Ritter (1985), and West and Cannon (1988) were previously identified as most critical by their own studies. Those elements resembling each other but stated differently by the authors were combined by a panel of two speech-language pathologists and one special education instructor (See Appendix A). All three panelists had experience designing and

implementing CCMs. The original 50 elements were condensed by the panelists to 45 elements.

Survey Procedures

The survey subjects were sent a packet containing a cover letter, the survey (see Appendix B), and a pre-addressed stamped envelope. The survey first requested the subjects to indicate whether they have used or are currently using CCM to treat students with communication disorders. If the subjects had no experience with CCM, then they were instructed to return the survey uncompleted. If the subjects were using or had ever used CCM, they were instructed to complete the survey. The survey consisted of 45 elements which contained features from one of five areas identified by the researcher. Therefore, the survey was separated into five separate sections. They were, (a) time, (b) assessment, (c) acceptance and approval, (d) interpersonal skills, and (e) miscellaneous. A brief explanation of each section was provided to acclimate the respondents to the elements within each section. Likewise, each element within the five sections was accompanied by one to two lines of explanatory text when necessary. The survey subjects were asked to rank each element on a 9 point semantic differential scale. Two

bipolar descriptive adjectives, unnecessary and critical, were positioned at opposite ends of the scale. A score of 1 would represent an unnecessary element and a score of 9 would represent a critical element. A nine point scale was selected so that the survey data would be robust enough for a powerful statistical analysis process. Additional space was provided for subjects to list elements not listed in the survey that were unique to their own CCM. The subjects were instructed to rate their own unique elements, if any, on the same semantic differential scale used to rate the survey elements. The survey participants were asked to complete and return the surveys within three weeks of mailing.

Observational Subjects

Two ASHA certified and state licensed speech-language pathologists were selected for on-site observation. Speech-language pathologist 1 (SLP 1) was working in a Central Illinois school serving a 3-5 year old at-risk population. Speech-language Pathologist 2 (SLP 2) was working in East Central Illinois serving a limited high school population and a K-4 elementary school.

Observation Procedures

On-site observations were completed for discussion

and informal evaluative purposes. The two observational subjects, SLP 1 and SLP 2, were contacted and agreed to participate in the research project the spring semester preceding the fall semester that they were observed. All necessary paperwork which included a research application for SLP 1 and administration approval was accomplished prior to the initial observation. A copy of the initial letter requesting the subjects' participation in the study is located in Appendix C.

Both SLP 1 and SLP 2 were observed one morning per week for 10 weeks. Observations were videotaped using a Panasonic PV 420D video camera and Polaroid Supercolor T-120 video cassettes. All audio recordings were made using a Sony TCM-31 cassette recorder and TDK D90 cassettes. In order to observe the students in the classroom, release forms were distributed. The release forms (see Appendix D) were signed by at least one legal guardian of each child participating in the video observations. In addition to the on-site observations, SLP 1 and SLP 2 were asked to complete the same survey that was mailed statewide to speech-language pathologists working in the schools. The surveys completed by SLP 1 and SLP 2 were analyzed with the other of the returned surveys.

CHAPTER 4

RESULTS

Statistical Analysis

Three hundred surveys were mailed to members of the Illinois Speech-Language Hearing Association. A total of 151 surveys were returned yielding a 50.3% return rate. Of those 151 returned surveys, 86 (28.6% of the original 300 mailing list participants) were completed by speech-pathologists who were implementing or had implemented CCM previously. Sixty-five respondents (21.6% of the original 300) returned the survey uncompleted and indicated that they had never used CCM. Eighty-two respondents (27.3%) reported years of experience which ranged from 1 to 32 years, with a mean of 15.2 years of experience. Seventy-one respondents (23.6%) reported time spent collaborating. These respondents estimated they spent from 1% to 99% of their time in collaboration, with an average of 24.7%. Sixty-nine respondents (23%) reported case load sizes which ranged from 10 to 105 students, with a mean number of 55.4 students.

Means and standard deviations for each element were derived from the 86 completed surveys. This data is summarized in Table 1.

TABLE 1.
Means Ranks (MR) and Standard Deviations (SD) of Survey Elements

	<u>MR</u>	<u>SD</u>
<u>Time</u>		
1. Planning time...	8.55	.96
2. Manage timing...	8.03	1.60
3. Star-up time...	7.95	2.04
4. Time to participate...	7.91	1.44
5. Time to observe...	6.88	2.35
6. Both receive assistance...	6.80	3.10
 <u>Acceptance & Approval</u>		
1. Acceptance and support...	8.32	1.68
2. Define responsibilities...	7.62	2.01
3. Demonstrate knowledge...	7.33	1.85
4. Opinion leaders...	7.19	2.11
5. Adjust approach...	6.98	2.70
6. Collaborative teaching...	6.74	2.38
 <u>Interpersonal Skills</u>		
1. Mutual trust...	8.29	1.74
2. Communicating clearly...	7.86	1.81
3. Interviewing teachers...	7.66	1.88
4. Equal learning...	7.60	2.21
5. Reporting progress...	7.59	1.57
6. Facilitating progress...	7.54	2.25
7. Recognizing differences...	7.51	2.01
8. Explaining perception...	6.91	2.79
 <u>Assessment</u>		
1. Continuous feedback...	7.97	1.23
2. Hidden curriculum...	7.52	1.84
3. Study/behavior skills...	7.38	1.42
4. Teaching styles...	7.37	1.84
5. Collecting data...	7.33	1.87
6. Materials...	7.03	2.10
7. Curriculum...	6.95	2.37
8. Observing students...	6.93	2.03
9. Evaluating impact...	6.31	3.09
10. Resources...	6.30	2.69
11. Alternatives...	6.18	3.01

TABLE 1.
Continued

<u>Miscellaneous</u>	<u>MR</u>	<u>SD</u>
1. Training by credible...	7.70	1.96
2. Working indirectly...	7.60	1.89
3. Pilot problem-solving...	7.52	2.53
4. Consistent application...	7.47	2.22
5. Advocate for services...	7.45	2.58
6. Collaborative relationship...	7.44	2.66
7. Explicitly defining...	7.34	1.92
8. Generate methods...	7.34	2.03
9. Utilize principles...	7.20	2.44
10. Decelerate inappropriate...	7.01	2.55
11. Develop written...	6.96	2.61
12. Match consultation...	6.94	2.60
13. Pursue issues...	6.89	2.64
14. Teach to specified...	6.76	1.97

Note: For the complete elements see the survey in Appendix B.

The mean scores for each element were then analyzed in two ways. First, a one-way analysis of variance was applied to each section of the survey (i.e., Time, Acceptance and Approval, Interpersonal Skills, Assessment, and Miscellaneous) to determine if statistical differences existed between the ranked scores of each element. If significant differences were observed, a post-hoc analysis was applied to specify the direction of differences. Finally, a post-hoc analysis was applied to the entire survey. This process provided data identifying the highest and lowest ranked elements from each section as well as the highest and lowest

ranked elements overall. The results of the one-way analysis of variance for each section of the survey appear in Tables 2 through 6.

TABLE 2.
Summary Table for One-Way Analysis of Variance Comparing Time Elements

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between People	778.83	85	9.16	-	-
Within People	1555.16	430	3.61	-	-
Between Measures	209.18	5	41.83	13.20	<.000*
Residual	1345.98	425	3.16	-	-
Total	2334.00	515	4.53	-	-

* Denotes Significance

TABLE 3.
Summary Table for One-Way Analysis of Variance Comparing Acceptance & Approval Elements

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between People	1050.80	85	12.36	-	-
Within People	1445.50	430	3.36	-	-
Between Measures	133.10	5	26.62	8.62	<.000*
Residual	1312.39	425	3.08	-	-
Total	2496.3004	515	4.8472	-	-

* Denotes Significance

TABLE 4.
Summary Table for One-Way Analysis of Variance Comparing
Interpersonal Skills Elements

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between People	1314.62	85	15.46	-	-
Within People	1682.87	602	2.79	-	-
Between Measures	87.67	7	12.52	4.67	<.000*
Residual	1595.20	595	2.68	-	-
Total	2997.49	687	4.36	-	-

* Denotes Significance

TABLE 5.
Summary Table for One-Way Analysis of Variance Comparing
Assessment Elements

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between People	1260.22	85	14.82	-	-
Within People	3610.00	860	4.19	-	-
Between Measures	279.19	10	27.91	7.12	<.000*
Residual	3330.80	850	3.91	-	-
Total	4870.22	945	5.15	-	-

* Denotes Significance

TABLE 6.
Summary Table for One-Way Analysis of Variance Comparing
Miscellaneous Elements

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between People	1881.15	85	22.13	-	-
Within People	4804.85	1118	4.29	-	-
Between Measures	98.98	13	7.61	1.78	<.040*
Residual	4705.87	1105	4.25	-	-
Total	6686.01	1203	5.55	-	-

* Denotes Significance

The results of each one-way analysis of variance indicated that significant differences existed between elements within each section as shown by the significant F ratios between measures.

Tukey's Honestly Significant Difference Test (Kirk, 1968) was applied to each section of the survey to specify the direction of the differences. Results appear in Tables 7 through 11.

TABLE 7.
Results of Tukey's Honestly Significant Difference Test
Comparing Time Elements

<u>Survey Element No.</u>	<u>Mean</u>	<u>Standard Deviation</u>
1	7.9535	2.0402
+ 2	8.5581	.9653
3	7.9186	1.4489
- 4	6.8837	2.3586
- 5	6.8023	3.1091
6	8.0349	1.6048

+ Denotes elements ranked significantly higher

- Denotes elements ranked significantly lower

TABLE 8.
Results of Tukey's Honestly Significant Difference Test
Comparing Acceptance & Approval Elements

<u>Survey Element No.</u>	<u>Mean</u>	<u>Standard Deviation</u>
+ 1	8.3256	1.6834
2	7.1977	2.1134
3	6.7442	2.3872
4	7.6279	2.0120
5	7.3372	1.8573
6	6.9884	2.7029

+ Denotes elements ranked significantly higher.

TABLE 9.
Results of Tukey's Honestly Significant Difference Test
Comparing Interpersonal Skills Elements

<u>Survey Element No.</u>	<u>Mean</u>	<u>Standard Deviation</u>
1	8.2907	1.7480
2	6.9186	2.7916
3	7.5116	2.0161
4	7.5930	1.5746
5	7.5465	2.2526
6	7.8605	1.8160
7	7.6047	2.2191
8	7.6628	1.8825

TABLE 10.
Results of Tukey's Honestly Significant Difference Test
Comparing Assessment Elements

<u>Survey Element No.</u>	<u>Mean</u>	<u>Standard Deviation</u>
1	6.9302	2.0338
2	6.9535	2.3759
3	7.5233	1.8454
4	7.3721	1.8410
5	6.3023	2.6923
6	6.1860	3.0196
7	6.3140	3.0956
8	7.9767	1.2365
9	7.3837	1.4239
10	7.0349	2.1057
11	7.3372	1.8700

TABLE 11.
Results of Tukey's Honestly Significant Difference Test
Comparing Miscellaneous Elements

<u>Survey Element No.</u>	<u>Mean</u>	<u>Standard Deviation</u>
1	7.6047	1.8991
2	7.3488	1.9206
3	7.4767	2.2214
4	6.9651	2.6187
5	7.0116	2.5552
6	6.7674	1.9744
7	7.3488	2.0336
8	7.7093	1.9636
9	7.2093	2.4404
10	7.4535	2.5835
11	6.9419	2.6093
12	6.8953	2.6437
13	7.5233	2.5378
14	7.4419	2.6684

Results indicated that within the section of Time "Planning time" was ranked significantly higher ($p < .05$) than the grand mean of all the elements in the

Time section. "Time to observe those involved in the collaborative effort" and "Both the individuals and organization receive assistance and attention to deal with problems" were both ranked significantly lower than the grand mean within the Time section. In addition, respondents emphasized the importance of time in the comments section of the survey.

Within the section of acceptance and approval, "Acceptance and support of administrators, teachers, and parents" was ranked significantly higher ($p < .05$) than the grand mean for that section. No elements were ranked significantly lower within the Acceptance and Approval section.

No elements were ranked significantly higher or lower within the sections of interpersonal skills, assessment, or miscellaneous.

Finally, Tukey's Honestly Significant Difference Test was applied to the entire survey. The only element ranked significantly higher ($p < .05$) than the grand mean of all 45 elements was "Planning time" (Mean = 8.5581, Standard Deviation = .9653) within the section of Time. The only element ranked significantly lower overall was "Evaluating alternatives to anticipate possible consequences, narrow and combine choices, and assign

priorities" (Mean = 6.1860, Standard Deviation = 3.0196 within the section of Assessment. A summary of the significant and insignificant elements is located in Table 12.

TABLE 12.
Summary Table of Significant and Insignificant Elements

Significant Elements

1. Planning Time.
2. Acceptance and support of administrators, teachers, and parents.

Insignificant Elements

1. Time to observe those involved in the collaborative effort.
 2. Both individuals and organization receive assistance and attention to deal with problems.
 3. Evaluating alternatives to anticipate possible consequences, narrow and combine choices, and assign priorities.
-

Based on the results of the statistical analysis the following operational definition of collaborative consultation emerged: A model which integrates the expertise of the speech-language pathologist and other professionals to establish curriculum based treatment which requires sufficient planning time and acceptance and support of administrators, teachers, and parents.

Reliability

The respondents were asked to rank each element on a 9 point semantic differential scale. Some of the surveys were returned with two numbers circled for only one element. Those elements with two numbers circled were alternately assigned either the higher or lower number to ensure unbiased data analysis.

The mathematical computation of Tukey's Honestly Significant Differences were completed by both an experienced statistician and the researcher with 100% agreement, providing interjudge reliability of the post-hoc analysis.

CHAPTER 5
DISCUSSION

Discussion of the Results

In addition to "Planning time" (Mean = 8.55) and "Acceptance and support of administrators, teachers, and parents" (Mean = 8.32), there were only two other elements that received a mean ranked score of 8.0 or higher. Those elements were "Manage timing of consultation activities to facilitate mutual decision making at each stage of the consultation process" (Mean = 8.03) from the section of Time, and "Establishing a climate of mutual trust" (Mean = 8.29) from the section of Interpersonal Skills. According to this research, these four elements were identified by the respondents as the most critical elements of CCM.

These findings support the work of Block (1990) who originally identified "Planning time" and "Acceptance and support of administrators, teachers, and parents", Friend (1984) who originally identified "Establishing a climate of mutual trust", and West and Cannon (1988) who originally identified "Manage timing of consultation activities to facilitate mutual decision making at each stage of the consultation process".

One of the implications of these findings is that

gaining the approval from administrators, teachers, and parents is key to initiating CCM. If appropriate approval and acceptance of this model is not achieved then initiation of CCM will be more difficult. Once acceptance and approval has been established, the key factors for developing an effective CCM program are establishing ample meeting/planning time when all members can attend and participate, and establishing a climate of mutual trust within the meetings and between team members.

These elements identified seem to be critical and would apply to either the Idol et al. (1986), Frassinelli et al. (1983), or ASHA (1983) definition of CCM. These elements would be critical in an integration of expertise model, or a consultant guiding a primary caregiver model, or an indirect model. Regardless of collaborative style, these elements hold true. The fact that the survey data originated from 86 respondents who most likely had many individual differences between CCM models also supports the idea that they are critical elements.

Although Idol et al. (1986), Frassinelli et al. (1983), and ASHA (1983) all have lists of elements that may have been needed for their own definitions of CCM,

the four elements identified by this research are the core or critical elements necessary for all collaborative consultation models and should be included in any operational definition.

Examining the most highly ranked elements within each section reveals "Planning time" to be the highest ranked element in the Time section, "Acceptance and support of administrators, teachers, and parents" to be the highest ranked element in the Acceptance & Approval section, and "Establishing a climate of mutual trust" to be the highest ranked element in the Interpersonal Skills section. All three of these elements have been previously identified and found to be critical elements of CCM.

Within the two remaining sections, "Utilizing continuous evaluative feedback to maintain, revise, or terminate consultation activities" was ranked most highly (Mean = 7.97, Standard Deviation = 1.23) within the Assessment section. This element was originally identified by West and Cannon (1988). Likewise, "Training by credible professionals with practical know-how" was ranked most highly (Mean = 7.70, Standard Deviation = 1.96) within the Miscellaneous section. This element was originally identified by Loucks-Horsley

and Cox (cited in Furguson, 1991). Although these elements were ranked highest within their sections they are not considered critical elements because they were not found to be statistically significant.

The elements found to be ranked significantly lower than all other elements were "Time to observe those involved in the collaborative effort" (Mean = 6.88, Standard Deviation = 2.35), and "Both the individuals and organization receive assistance and attention to deal with problems" (Mean = 6.80, Standard Deviation = 3.10). Both of these elements were originally identified by Loucks-Horsley and Cox (cited in Furguson, 1991). Also found to be ranked significantly lower overall was "Evaluating alternatives to anticipate possible consequences, narrow and combine choices, and assign priorities" (Mean = 6.18, Standard Deviation = 3.01). This element was originally identified by West and Cannon (1988).

These findings suggest three ideas. Illinois speech-language pathologists may not have schedules that allow time to observe other members involved in a collaborative effort. While this element may have some benefits, it is not a realistic element of CCM as shown by its mean ranked score. Secondly, the fact that an

element referring to the collaborative team members receiving assistance and attention to deal with problems was ranked quite low indicating a holistic attitude towards CCM. By ranking this element low, the attitude the respondents may have been conveying was that CCM is a service delivery model in which team members contribute ideas, give suggestions, and provide expertise for the benefit of the student(s), not to provide assistance or support for other educators. This data suggests that assuming someone else's responsibility or turning to the team to share individual burdens is not CCM. Instead, the respondents may be saying that team members need to bring their ideas, insight, and skills to the team for the benefit of the student(s).

Finally, these low ranked elements suggest that CCM team members do not spend time pursuing hypothetical situations to determine what they would do if such a situation arose, ("Evaluating alternatives to anticipate possible consequences"). The respondents to this survey chose straight forward elements that dealt with practical needs (i.e., planning time and support from administrators).

Both of Loucks-Horsley's elements (cited in

Ferguson, 1991) and West and Cannon's (1988) elements have been identified as statistically insignificant. Therefore, these three elements may be unnecessary for successful implementation of CCM.

Elements on the survey not identified as critical or unnecessary elements may be viewed as CCM guidelines. The guidelines may or may not be assistive when implementing CCM.

There was a section included on the survey instrument asking the respondents to list any elements unique to a program; however, no-one returned the survey with a novel element that received a significant ranking. Interestingly, most of the respondents who contributed written feedback within that section of the survey emphasized their feelings concerning lack of time.

Research Implications

One area of possible research is to examine the importance of the guideline elements. How important or damaging to CCM are the guideline elements that received a mean ranked score of below 7.0? The importance of the guideline elements should be addressed through future collaborative studies.

Another possibility of expanding the research

concerning collaborative consultation is to address any other lists of elements generated from authors not listed in the review of literature. Although this study has considered several lists of elements, there may be other lists of collaborative elements recently synthesized by current research or progressive leaders in the field of speech-language pathology. It is critical to test all elements and their relevance through research designs.

Finally, an efficacy study would be interesting to design comparing the effectiveness of two groups of collaborative models. One group of CCMs that use the critical elements and secondary/unnecessary element data to guide the teams through the initial implementation of a CCM, and one group left to implement CCMs without any formal direction or instruction. Effectiveness could be measured through a dependent variable such as the progression of students' speech and language performance on standardized evaluation instruments. The results of this type of study may indicate if more highly ranked collaborative elements make a difference in the effectiveness of collaborative consultation.

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APPENDIX B

Sample Cover Letter & Survey

January 23, 1992

Dear Colleague:

The Graduate Program in the Department of Communication Disorders and Sciences at Eastern Illinois University is conducting research to determine the critical elements of collaborative consultation. It is our hope that this research will provide concise guidelines for designing and implementing collaborative consultation models in Illinois schools.

Enclosed is a survey instrument that will aid in determining the critical elements of collaborative consultation. Please complete the survey and return it in the pre-addressed stamped envelope by February 15, 1992.

Your time and participation are greatly appreciated.

Sincerely,

Kurt T. Kruger, B.S.
Graduate Clinician

Robert M. Augustine, Ph.D.,
CCC/SLP Thesis Chair

COLLABORATIVE CONSULTATION SURVEY

1

The purpose of this survey is to determine the critical elements of collaborative consultation.

- ___ If you have never used collaborative consultation, please check here and return the survey in the enclosed pre-addressed stamped envelope.
- ___ If you are currently using a collaborative consultation model or have used one in the past, please complete the rest of the survey and return it in the pre-addressed stamped envelope by February 15, 1992.

There are five components of collaborative consultation elements listed below. They are, (a) Time, (b) Acceptance and Approval, (c) Interpersonal Skills, (d) Assessment, and (e) Miscellaneous. Each element is accompanied by a nine point scale. Please rank each element by circling any number 1 through 9, with 1 reflecting that the element is unnecessary for collaborative consultation and 9 reflecting that the element is critical for collaborative consultation. If you feel an element is neither critical or unnecessary, circle 5 which is the midpoint of the scale. If you do not know how to rank an element, check "Don't know" in the right hand margin. It should take approximately 10 to 15 minutes to complete the survey.

TIME

The following elements of collaborative consultation are related to time. Please indicate how critical or unnecessary you feel these elements are within a collaborative consultation model.

1. Start-up time, (Time to prepare for the initial implementation of a collaborative consultation model).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ___

2. Planning time, (Time for everyone involved to plan collaborative consultation units, activities, etc.).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ___

3. Time to participate in staffing conferences.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ___

4. Time to observe those involved in the collaborative effort.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ___

5. Both the individuals and organization receive assistance and attention to deal with problems. (Time to give collaborative members assistance, as a group or individually).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

6. Manage timing of consultation activities to facilitate mutual decision making at each stage of the consultation process, (For example, arrange meeting times so all members can attend and participate).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't Know ____

ACCEPTANCE AND APPROVAL

The following elements of collaborative consultation are related to the acceptance and approval of a collaborative consultation model. Please indicate how critical or unnecessary you feel these elements are within a collaborative consultation model.

1. Acceptance and support of administrators, teachers, and parents.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

2. Teachers who are opinion leaders demonstrate support for the model.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

3. Collaborative teaching written into the curriculum, the budget, or someone's job description.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

4. Define the specific responsibilities of the speech-language pathologist and teachers involved, what the teachers will do differently, and the benefit the students will derive from the change.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

5. Demonstrate knowledge of various stages/phases of the consultation process. (Each member possesses knowledge of the collaborative consultation model).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

6. Adjust consultation approach to the learning stage of individuals involved in the consultations process.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

INTERPERSONAL SKILLS

The following elements of collaborative consultation are related to interpersonal skills. Please indicate how critical or unnecessary you feel these elements are within a collaborative consultation model.

1. Establishing a climate of mutual trust.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

2. Explaining resource teacher perception of a problem situation to a regular education teacher.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

3. Recognizing individual (team member) differences in the (program's) developmental progress.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

4. Reporting progress to parents.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

5. Facilitating progress in consultation situations by managing personal stress, maintaining calm in time of crisis, taking risks, and remaining flexible and resilient.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

6. Communicating clearly and effectively in oral and written form.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

7. Facilitating equal learning opportunities (for students and team members) by showing respect for individual differences in physical appearance, race, sex, handicap, ethnicity, religion, socioeconomic status, or ability.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

8. Interviewing regular education teachers to obtain academic, social, and behavioral information about a student.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

ASSESSMENT

The following elements of collaborative consultation are related to assessment. Please indicate how critical or unnecessary you feel these elements are within a collaborative consultation model.

1. Observing students other than in their classrooms.
(lunchroom, playground, halls, other classrooms).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

2. Assessing curriculum.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

3. Assessing hidden curriculum, (anything that other special education students or regular education students seem to know about functioning in the classroom and school that the communicatively disordered students do not know).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

4. Assessing teaching styles, (how do the speech-language pathologist and the other collaborators feel comfortable teaching?).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

5. Assessing resources.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

6. Evaluating alternatives to anticipate possible consequences, narrow and combine choices, and assign priorities.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

7. Evaluating the impact of input, process, and outcome variables on desired consultation outcomes.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

8. Utilizing continuous evaluative feedback to maintain, revise, or terminate consultation activities.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

9. Assessing study and behavior skills through classroom observations.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

10. Assessing materials with access to resource and hands-on materials to assist implementation.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

11. Collecting data and systematically evaluating the information to determine the effectiveness of intervention.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

MISCELLANEOUS

The following elements of collaborative consultation are not related to time, acceptance and approval, interpersonal skills, or assessment. Therefore, these elements are grouped into a separate "miscellaneous" category. Please indicate how critical or unnecessary you feel these elements are within a collaborative consultation model.

1. The belief that by working indirectly through teachers, the speech-language pathologist can help children.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

2. Explicitly defining the problems resource teachers and regular education teachers address.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

3. Consistent application of reinforcement principles and practices.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

4. Develop written Individualized Educational Plans.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

5. Decelerate inappropriate social behaviors.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

6. Teach to specified instructional objectives.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

7. Generate methods/activities for specified objectives.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

8. Training by credible professionals with practical know-how.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

9. Utilize principles of least restrictive environment in all decisions regarding handicapped students.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

10. Advocate for services which accommodate the educational, social, and vocational needs of all student, handicapped and nonhandicapped.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

11. Match consultation approach(es) to specific consultation situation(s), setting(s), and need(s).

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

12. Pursue issues with appropriate persistence once they arise in consultation process.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

13. Adopt a "pilot problem-solving" attitude, recognizing that adjustments to the plan of action are to be expected.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

14. Assuming a collaborative relationship with all members of the consultation process while maintaining a team ownership/joint responsibility attitude throughout all phases of the problem-solving process.

Unnecessary 1 2 3 4 5 6 7 8 9 Critical Don't know ____

In the space provided below, please list any elements not listed in the survey that are unique to your own collaborative consultation model. In addition, please assign your unique elements a ranked number from 1 to 9, just as you did with the previous elements.

The following information is optional, but would be appreciated for research purposes:

How many years have you been working in Illinois schools? _____

How much of your time do you estimate is devoted to collaborative consultation?
_____%

How many students do you see in the following areas?

Language _____	Stuttering _____
Articulation _____	Other disorders _____
Voice _____	

Thank you for your time. Please return this completed survey in the pre-addressed, stamped envelope by February 15, 1992.

APPENDIX C

Sample Letter Requesting Participation

April 25, 1991

Name
Address

Dear Name:

Thank you for supporting my research in the area of collaborative consultation treatment models. The information below summarizes the critical features of the proposal.

1. Rationale for observing- The design of my thesis is descriptive. The title is The Critical Elements of Collaborative Consultation. I have three questions that I hope to answer when my thesis is complete:
 - a. What are the procedures as defined by the literature?
 - b. What are the procedures being used in the schools?
 - c. What are the conclusions based on this comparison?

It is necessary for me to observe and collect data in the schools to answer the thesis questions.

2. Observation times- The observation is tentatively scheduled for Thursday mornings from the start of the school day until lunch during the Fall Semester 1991. This is one-half day per week and should be all that is necessary.
3. Student teachers- I don't foresee any problems in the event that a student teacher or practicum student administers therapy. If this situation

Name
Date
Page 2

arises, observation will continue as planned without any changes.

4. Student assessment- I will not be needing to assess any students' speech or language because of the descriptive nature of the thesis. I may need access to students' files for the purpose of documenting speech and language data.
5. Additional time- Other than completing a written survey near the end of the semester, I don't anticipate that you would need to devote any additional time for this project. I will handle any audio-visual preparation and recording that needs to be done.

Here are two numbers where I can be reached: EIU Clinic (217)581-2712 and my home phone (217)348-7715.

Again, thank you for allowing me the opportunity to observe. I am looking forward to working with you next fall.

Sincerely,

Kurt T. Kruger, B.S.
Graduate Clinician

Robert M. Augustine, Ph.D., CCC/SLP
Thesis Chair

APPENDIX D

Release Form

EASTERN ILLINOIS UNIVERSITY
 Communication Disorders and Sciences
 Charleston, IL 61920

I hereby authorize research participation at Name School
 for (Name): _____, (Birthdate): _____

who is my (Relationship): _____. I understand
 that the research procedures will be conducted by Kurt
 T. Kruger, B.S. graduate student in the Department of
 Communication Disorders and Sciences at Eastern Illinois
 University under the direct supervision of Robert M.
 Augustine, Ph.D., Department Chair. The procedures for
 this study have been approved by the Human Subjects
 Review Board at Eastern Illinois University. I hereby
 give permission for Eastern Illinois University to use
 all data collected during the research, including video
 and audio recordings, for teaching and publication.

 (Signature)

 (No. and Street)

 (City) (State) (Zip)

 (Date)

 (Witness)