ABSTRACT

HAMMEL, P. A. Changes in clinical students' perceptions of effective teaching and developmental physical education. MS in Exercise and Sport Science-Pedagogy, August 1995, 67pp. (J. Steffen)

Male and female (N = 51) college students in a physical education teacher preparation program completed a questionnaire to record their perceptions of developmental physical education and effective teaching methods before and after a 20 hour clinical experience. Subjects were in either their first 20 hour clinical experience (Group A) or their second 20 hour clinical experience (Group B). The questionnaire contained 25 multiple choice questions about developmental physical education and effective teaching methods. The remaining 11 questions determined background information about where the subjects perceived they gained the knowledge to answer the questions and a description of their elementary, middle, and high school physical education experiences. An ANOVA determined that there was no significant change ($p > .05$) in the subjects' perceptions from the beginning of the clinical experience to the end. Thirty-nine percent of the subjects attributed their influence in answering the effective teaching and developmental questions as being the university professors and another 27% attributed influences as coming from cooperating teachers. Further investigation of the changes in the subjects' perceptions is warranted. A more extensive questionnaire and qualitative analysis would help to obtain this information.

CHANGES IN CLINICAL STUDENTS' PERCEPTIONS OF DEVELOPMENTAL PHYSICAL EDUCATION AND EFFECTIVE TEACHING

A MANUSCRIPT STYLE THESIS PRESENTED

TO

THE GRADUATE FACULTY

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Candidate: Patricia A. Hammel

We recommend acceptance of this thesis in partial fulfillment of this candidate's requirements for the degree:

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The candidate has successfully completed her thesis final oral defense.

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INTRODUCTION

The first observation and teaching experiences that college students in physical education teacher preparation programs obtain outside the university classroom are those known as clinical experiences. A clinical program allows students to view a trained physical education teacher in a school setting. The clinical student can formulate perceptions about appropriate content to be taught in the physical education classroom, and obtain knowledge of effective teaching strategies. There are studies that have examined whether these clinical periods have an effect on the student's perception of curriculum to be taught and effective teaching strategies (Graber, 1990; Paese, 1987; Schemp, 1985; Wendt, Bain, & Jackson, 1981; Zeichner, 1986). Additional studies have examined the effect of the students' personal experiences and how they guide the future teacher. The purpose of this study was to observe changes in the perceptions of clinical students during an elementary/middle school 20 hour clinical experience. This study focused specifically on the clinical student's perception in relation to developmental physical education and effective teaching.

Graham, Hohn, Werner, and Woods (1993) found that among clinical students, student teachers, and cooperating

teachers, clinical students had the least appropriate perception of what is to be taught in physical education. The clinical students in Graham et al. had perceptions that physical education should be sport related. The perceptions of the student teachers demonstrated a growth in knowledge and revealed a need for children to learn motor skills and become skillful movers.

Allison, Pissanos, and Sakola (1990) studied elementary education majors enrolled in an elementary school physical education methods course. Allison et al. reported that the perception of physical education was seen as negative, based on the individual's personal experiences in physical education. Teacher preparation programs are teaching students with these negative perceptions to be positive in teaching physical education at the elementary level. These students, based on their own experiences in physical education, may find it challenging to promote the need for physical education to help children to become skillful movers.

In teacher preparation programs for physical education majors, it is likely that students are there because they had positive experiences in physical education (unlike subjects in Allison et al., 1990). Experiences of physical education majors could be negative though, and if this is a fact, college programs could influence a change in the perception of these students. Thus, the importance of

teaching curriculum such as developmental physical education could be perceived as important by the clinical students.

Studies expressed the need for a developmental physical education curriculum (Clark & Whitall, 1989; Graham, 1987; Smith, Carlisle, & Cole, 1991). The term developmental physical education comes from motor development which is defined by Haywood and Loughery (1987) as relating to maturation of the neuromuscular mechanism which permits progressive performance in motor skills. Graham, Holt/Hale, and Parker (1987) listed examples of developmental physical education skills as: balancing, catching, throwing, bouncing, dribbling, fleeing, galloping, hopping, jumping, kicking, leaping, rolling, running, skipping, sliding, striking, stopping, turning, twisting, and walking.

A curriculum that will help children to progressively develop these skills is one that teaches these skills individually at the kindergarten level and slowly combines them as the child masters the skills. Graham (1987) stated that it was a false assumption that students learn motor skills by playing games. Teaching these skills in a game situation is not appropriately teaching the skills.

Future teachers, while developing the knowledge of appropriate curriculum to be taught, should gain knowledge of appropriate teaching strategies to use while teaching. Teachers with strong effective teaching skills provide an environment in which students can develop greater motor

skills (Faucette & Patterson, 1990). Effective teaching strategies deal with learning time, time on task, transition time, maximum participation, maximal practice attempts, modeling, and learning styles. It is important for clinical students to understand and to be able to apply these strategies in their teaching.

Graham et al. (1993) examined clinical students, student teachers, and cooperating teacher's knowledge of effective teaching characteristics. The clinical students had a more simplistic view of effective teaching than the student teachers and cooperating teachers. Bell, Barrett, and Allison (1985) stated that for clinical students to gain the knowledge of effective teaching it is necessary to teach these students to observe. O'Sullivan and Tsangaridou (1992) reported that early field experiences can provide the experiences a clinical student and student teacher need to understand teaching and the teacher's role in the education of children.

Faucette and Patterson (1990) showed that physical education specialists have more knowledge and exhibit more effective teaching behaviors than nonspecialists and, therefore, present a more organized environment which creates higher levels of activities for students. Effective teaching knowledge was reported by Brophy (1982) to promote greater achievement by students taught by teachers prepared in these techniques.

In the areas of developmental physical education and effective teaching, a student's clinical experience may not be what guides them toward developing their personal teaching strategies and beliefs. There is the underlining factor of student's personal experiences that may be the final impetus for what they view as proper curriculum and effective teaching characteristics. There is a need to document the extent to which a student's perceptions change during a clinical experience in order to provide valuable information to teacher preparation programs in extending the knowledge of clinical students in the area of developmental physical education and effective teaching.

METHODS

Subjects

Subjects for this study were students in the physical education teacher preparation program at the University of Wisconsin-La Crosse (N = 51). During the spring semester of 1995 students were in one of two 20 hour clinical experiences in the teacher preparation program. The subjects in the first 20 hour experience were labeled Group A (N = 24) and those in their second 20 hour clinical experience were labeled Group B (N = 27). Descriptive data of the subjects are presented in Table 1.

Table 1. Subject Demographics

	Group A	Group B
Gender		
Females	17	12
Males	7	15
Age		
17-19	8	0
20-22	16	21
23-24	0	2
25-26	0	0
27 and older	0	3
School Year		
Sophomore	14	0
Junior	6	13
Senior	4	14

Students in Group A were completing their first 20 hour clinical experience in physical education. These subjects observed a cooperating teacher teach physical education at the K-6 level. The students completed effective teaching assignments such as a feedback lab and teacher movement lab (see Appendix A). Some students assisted the cooperating teacher working with small groups. A course taken concurrently with the clinical experience was an introduction to methods of teaching physical education.

The clinical students in Group B observed a cooperating teacher teach physical education at the K-6 or middle school level for 20 hours. Effective teaching assignments such as the domains (psychomotor, cognitive, and affective) presented in a lesson taught by the cooperating teacher and teacher positioning in relation to the number of students visible were completed by the clinical students (see Appendix B). Students in Group B were assigned to teach four lessons. The students wrote lesson plans and completed a self-evaluation (see Appendix B). Group B students took a concurrent elementary and secondary methods course.

Instrument

The instrument used in this study was a questionnaire (see Appendix C) designed to collect data pertaining to clinical students' perceptions of effective teaching behaviors and students' knowledge of developmental physical education at the K-3 grade level. Questions were written in a multiple choice format. For each of the questions there was only one correct answer. There were a total of 36 questions. The questionnaire consisted of 15 questions on developmental physical education (questions 1, 2, 4, 6, 7, 10, 11, 13, 14, 17, 18, 19, 21, 22, and 25). There were 10 questions on effective teaching (questions 3, 5, 8, 9, 12, 15, 16, 20, 23, and 24). Three questions dealt with background information on the subject's personal experiences in physical education (questions 27, 28, and 29). Question

number 30 requested that the subject state what grade level they are likely to teach. In two questions (questions 31 and 32) the students choose from a list of possible sources that influenced them in answering the questions on developmental physical education and effective teaching. One question was designed to find what personal experiences in physical education led them to formulate their chosen answers to the questions. The questionnaire concludes with demographic questions relating to gender, age, year in school and grade point average (questions 33, 34, 35, and 36).

In developing the questions on effective teaching, studies and textbooks (Barnes, 1981; Harrison, 1987; Phillips & Carlisle, 1983; Rink, French, Lee, Solomon, & Lynn, 1994; Sanford & Evertson, 1981; Siedentop, Mand, & Taggart, 1986) that provided appropriate effective teaching methods and their application were used to provide the content. The questions on developmental physical education were developed from textbooks and studies (Graham et al., 1987; Nichols, 1986; Siedentop, Herkowitz, & Rink, 1984; Smith et al., 1991) that have descriptions of developmental physical education curriculums. A panel of experts in the field of developmental physical education and effective teaching were used to help validate the questionnaire. Content validity procedures by Thomas and Nelson (1990) were followed. The panel members reviewed the questionnaire and

provided feedback on validity of the questions. This panel was familiar with the subject population and able to state if questions were appropriate to the clinical student's knowledge base.

The split-halves procedure was used to assess internal consistency of the questionnaire. The first 25 questions were divided in half using a table of random numbers (procedures followed for the use of the table were from Hopkins, Glass, and Hopkins, 1987). The scores for the two subject groups (A and B) were calculated (see Appendix D). A Pearson product moment correlation coefficient was calculated using the Stat-Star (Mac Dougall, 1994) statistical program (see Table 2). The Spearman-Brown prophecy formula was used to adjust the correlation coefficient to estimate the true reliability of the questionnaire (see Table 2). The procedure for this is described in Safrit and Wood (1989). The results showed reliability of the questionnaire for the two groups (r_1 = .494).

Table 2. Results for Split-Halves of Questionnaire

N	Mean	SD	r_1*	r_{11}**
51	9.922	1.631	.328	.494

* = Pearson correlation ** = Spearman-Brown prophecy

Procedures

The design used for this study was the separate-sample pretest-posttest design described by Campbell and Stanley (1963). The separate-sample design was chosen because it strengthens the internal validity of the test and familiarity with the questionnaire is alleviated. This design requires giving half of each subject group the pretest and the remaining half the posttest. In January 1995 subjects who were to take the pretest and those who were to take the posttest were randomly selected from class role sheets from the two clinical classes. To divide the subjects into the given groups, the use of a table of random numbers was employed.

During the first week of the semester before the subjects began their clinical experience the pretest subjects for Groups A and B completed the questionnaire. Answers were recorded on a computer sheet. The subjects were given the opportunity to not complete the questionnaire if they chose. The subjects did not put their names on the answer sheets to assure anonymity. The only identifying mark on the answer sheet was the number 326 or 226 to identify the class in which they were enrolled. At the end of the semester the remaining half of the subjects in Groups A and B completed the questionnaire.

The answers to the questionnaires were processed by the computer center on campus. A total score, representing the

number of correct answers, for the first 25 questions for each subject was obtained (see Appendix E). Results from the questionnaire such as demographics and the answers to the questions relating to the subjects' personal experiences in physical education were also processed and recorded. This processing included scores for the 15 developmental questions and the 10 effective teaching methods (see Appendix F).

Statistical Analysis

A one way analysis of variance (ANOVA) was used to analyze the data. The significance level was set at .05. The questions on developmental physical education and effective teaching were compared separately for each group.

A descriptive analysis was completed on the data for the students personal experiences in physical education. These data were reported as percentages for each question.

RESULTS

Descriptive analysis of the effective teaching questions showed that 82% of the subjects scored an 80% or higher. The mean for Group A on the pretest was 8.0 and 8.1 was the mean for Group B (see Table 3). The analysis of the developmental questions showed that 48% of the subjects scored a 73% or higher. The mean for Group A was 9.4 and 11.1 for Group B (see Table 3).

Table 3. Means and Standard Deviations for Effective Teaching and Developmental Pretest Scores

Group	M	SD
A		
Effective Teaching	8.0*	.961
Developmental	9.4**	1.778
B		
Effective Teaching	8.1	1.301
Developmental	11.1	1.791

* = 10 Possible ** = 15 Possible

In Group A the ANOVA showed an $F(1,22) = 0.197$ for the effective teaching questions and an $F(1,22) = 0.146$ for the developmental questions (see Table 4). The results for Group B showed an $F(1,25) = 1.322$ for the effective teaching questions and an $F(1,25) = 1.069$ for the developmental questions (see Table 4). There was no significant difference at the .05 level.

The subjects rated their personal elementary, middle, and high school physical education experiences as positive. In the two groups there were a minority of students who responded that they had some negative and some positive experiences. Four students rated one of their experiences as negative (see Table 5).

Table 4. Statistical Results of the ANOVA

Group	df	MS	F*	F > Prob.
A				
Effective Teaching	1,22	0.197	0.129	0.7231
Developmental	1,22	0.700	0.146	0.7058
B				
Effective Teaching	1,25	2.035	1.322	0.2611
Developmental	1,25	6.667	1.069	0.3110

* Significance at .05

Table 5. Subjects' Personal Physical Educational Experiences

Group/ Grade Level	Positive	Negative	P & N	NA
A				
Elementary	67%	4%	29%	0%
Middle School	58%	0%	42%	0%
High School	67%	4%	29%	0%
B				
Elementary	69%	4%	27%	0%
Middle School	50%	4%	38%	8%
High School	58%	0%	38%	4%

P & N = Some Positive/Some Negative NA = Not Applicable

The subjects responded to the questions pertaining to the source that influenced their answers to the developmental

questions by showing that the main source came from the university professors (36%). The secondary source was the cooperating teacher (26%). The same was found to be true for the source that influenced the answers to the effective teaching questions (see Table 6).

Table 6. Sources Influencing Answers to Effective Teaching and Developmental Questions

Category/ Source	Group A	Group B
Developmental:		
Past Elementary Teacher	33%	4%
Textbook	0%	15%
Cooperating Teacher	29%	23%
University Professors	25%	46%
Other	13%	12%
Effective Teaching:		
Past Elementary Teacher	17%	15%
Textbook	0%	8%
Cooperating Teacher	29%	27%
University Professors	46%	38%
Other	8%	12%

In answering the question that related to what personal experiences affected how they answered the questions, the influence with the highest percent for Group B was

experiences at the college level (see Table 7). In Group A 46% of the subjects responded that college experiences influenced their answers, as well as another 46% in this group stated that precollege experiences influenced their answers.

Table 7. Subjects' Past Experiences That Influenced Answers

Group	E,M,H	College	Text/Personal	Others
A	46%	46%	0%	8%
B	12%	58%	15%	15%

E,M,H = Elementary, Middle, and High School

There were 44% of the subjects that stated they were likely to teach at a level higher than elementary (see Table 8).

Table 8. Grade Level Subjects Perceive Teaching

Group	Elementary	Middle School	High School	Not Sure
A	13%	13%	50%	25%
B	31%	15%	38%	15%

DISCUSSION

The statistical analysis used to determine change in the subjects' perceptions from the beginning of the clinical experience to the end showed no significant difference.

This indicates that clinical experiences had no impact on the perceptions of the student. This is in agreement with Wendt et al. (1981) and Schemp (1985) who reported that attitudes of student teachers did not change at the completion of a student teaching program.

The clinical students in this study were enrolled in methods courses concurrently with the clinical experience. These subjects were surveyed on their perceptions of developmental physical education as well as effective teaching. The method courses provided knowledge of effective teaching, yet as stated above, there was no significant change in the subjects' perceptions. What the subjects perceived becomes a more important factor of this study.

The clinical students scored high on the effective teaching questions. In Groups A and B 82% of the subjects received a score of 80% or higher. This indicates that the subjects have an understanding of effective teaching methods. The subject's perception of effective teaching methods did not change significantly from the beginning of the clinical experience until the end. It seems that the clinical students are receiving effective teaching knowledge prior to the clinical experience. A conclusion to be drawn from this study is that the courses taken prior to the clinical experiences have an effect on the subject's perceptions of effective teaching methods. There were 42%

of the subjects that attributed their knowledge of effective teaching to instruction by university professors. Graham et al. (1993) reported that in the clinical stage students gave a simplistic view of effective teaching methods. The questionnaire in this current study was simplistic, resulting in the subjects being able to identify appropriate effective teaching methods.

Subjects stated that the main influences that assisted in their ability to answer the effective teaching questions were university professors and cooperating teachers (in that order). Graber (1990) stated that it is common for student teachers to return to their own methods and beliefs of teaching once they are out in the field. As stated previously, subjects in this study perceived their knowledge as coming from university professors and cooperating teachers. There was no change in the students perceptions but, this could predict that the subjects may not teach the way the influencing university professors and cooperating teachers instruct them to teach.

The results of the developmental questions were not significantly different from the effective teaching but they were slightly lower. The two groups (A and B) had 48% of the subjects scoring 73% or higher on the developmental questions. According to Lanier and Little (1985) too much time may be spent in classroom management (effective teaching methods), not on curriculum content and this may be

done at the student teacher's expense. This is a possible explanation for the slight difference between the developmental and effective teaching questions.

The subjects are receiving knowledge of developmental physical education as demonstrated by their response that stated that university professors and cooperating teachers influenced how they answered the developmental questions. The most recent experience subjects had in physical education prior to the college experience was at the high school level. At the high school level physical education is sports and leisure time oriented. Thus, it may be that the subjects need to continue their instruction in developmental physical education to change this last perception of what the curriculum should be at the elementary level. Developmental physical education could be more complex then effective teaching, therefore, it may take longer to gain an understanding of it. Further research into this area is warranted, perhaps having the students complete the questionnaire when they are further along in the teacher preparation program.

The need for more instruction in developmental physical education seems apparent. Taggart (1989) expressed the need for prestudent teaching experiences to last as long as 80 hours. The extension of required clinical hours would give cooperating teachers and university professors a chance to present more knowledge about developmental physical

education and effective teaching to the clinical student. The 40 hours (20 for the first clinical experience and 20 for the second) that the subjects of this current study completed by the end of the second clinical experience may have affected the subjects' knowledge of effective teaching. The addition of 40 more hours would allow for the subjects' growth in knowledge in developmental physical education.

There are logistical problems that would not allow for the addition of 40 more clinical hours. Taggart (1989) has an answer to the question of how to present more teaching knowledge to the clinical students (increasing the clinical hours to 80), but those extra 40 hours would be challenging to incorporate into most teacher education programs. The subjects of this study found it difficult to fit the 20 hours into their class schedules due to the conflict of class schedules of the schools where they were observing. Unlike the student teaching experience where the students have completed most of their required course work, the clinical students are having to incorporate the clinical hours into the hours spent on their current course work.

A solution to the problem mentioned above would be to include more instruction on developmental physical education in the students' courses taken in the physical education program. There is no obvious answer to the problem of presenting the clinical student with more knowledge of

developmental physical education. This is an area that needs further research.

Another area investigated by the questionnaire was the students' perceptions of past physical education experiences. Allison et al. (1990) reported that education majors in an elementary school physical education methods course perceived their past experiences as being negative. The subjects in this current study were physical education majors and their perceptions were positive. The results of this study shows that in Group A, 67, 58, and 67% had positive elementary, middle, and high school experiences, respectively. In Group B, 69, 50, and 58% had positive elementary, middle, and high school experiences, respectively. This could be why the subjects chose physical education, as a major. Further research could include a repeat of this study with elementary education majors, enrolled in a elementary physical education methods class, to determine their perceptions of physical education. A comparison of the results from future research to the results of this study would be valuable in discerning a trend in what experiences guide students away from or towards physical education.

The questionnaire focused on developmental physical education and effective teaching at the K-3 grade level. There was a question asked of the subjects as to how many of them intended to teach at the K-3 grade level. The majority

(44%) saw themselves teaching high school physical education. Only 22% stated they were likely to teach at the elementary level. The subjects' perceptions of developmental physical education could be negative due to the subjects not seeing a need to retain developmental knowledge if they are not going to teach at the elementary level.

Teachers at the high school level need to understand the integration of motor skills in sport and leisure time activities. It is assumed that these subjects perceive the curriculum at the high school level to include sport and leisure time activities with no need to incorporate an understanding of motor skills. Skills such as a basketball lay-up require the students to do basic locomotor skills (running and hopping). In analyzing a student unable to do a lay-up, the teacher may have to review these locomotor skills with the student. Thus, a knowledge of these skills is necessary.

This study shows that the subjects have a knowledge of effective teaching. A growth in the area of effective teaching by the subjects appears to be coming from somewhere in their teacher preparation program. The subjects attributed the influence of this knowledge to come from the university professors. Further research would be valuable to see if these subjects will maintain this knowledge when they go out to the field on their own to teach.

The area of developmental physical education poses a concern for this author. Further research on the same subjects could possibly show higher scores on the developmental questions if the questionnaire was administered to these subjects at a time later in the teacher preparation program.

This study should be repeated at the end of the subjects' student teaching experience and after a year or two of teaching in the field. The comparison would be of value to see if perceptions change after subjects leave the guidance of university professors.

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APPENDIX A

CLINICAL ASSIGNMENTS FOR GROUP A

ESS 226 (Methods In Physical Education)

Participation Lab
Observe a class for 30 minutes. Count how many students are enrolled in the class the first 3 minutes of the class. Determine the class participation level every 5 minutes and at predetermined times.

Trial 1 _____ Trial 4 _____

Trial 2 _____ Trial 5 _____

Trial 3 _____ Trial 6 _____

Type of activity observed: _____

Example:

Trial 1 10 of 20 students are either physically or cognitively involved in class. Ten are standing around.

Trial 1: 10 of 20

Determine the percentage of students active for 6 trials.___

What effect does the activity taught have on the participation level?

What general considerations can you apply to your teaching and coaching from this lab?

ESS 226

SITE:_____

TIME MANAGEMENT EVENT RECORDINGS

	Managerial	Transitions	Practice
1			
2			
3			
4			
5			
	TOTAL	TOTAL	TOTAL

% BREAKDOWN IN EACH AREA

Managerial -

Transitions -

Practice -

Feedback Lab (ESS 226)

Count the number of feedbacks given for an entire class period. Do not follow the teacher around if you are not able to hear the feedbacks but estimate the type and amount of feedback given.

Teacher Feedbacks

Skill General _____ Managerial General _____

Skill + Specific_____ Managerial + Specific_____

Skill Correctional and/or Negative FB_____ Managerial Correctional and/or Negative FB_____

How many minutes was the class? _____

Total feedbacks per minute? _____

Negative/positive ratio _____

What is the difference between a general and specific feedback?

What type of feedbacks do effective teachers use most?

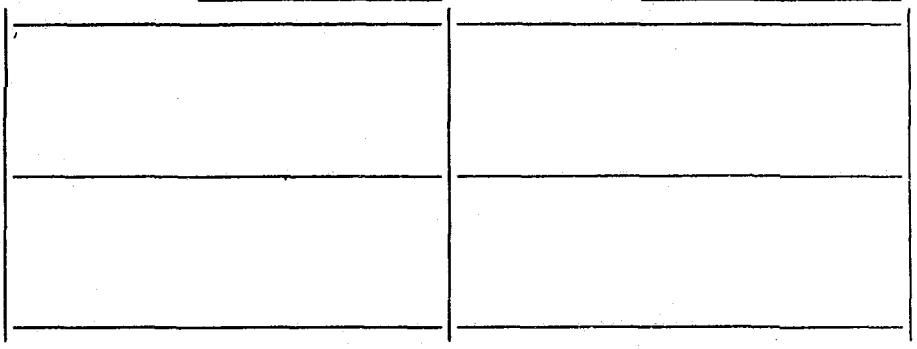
How can this lab influence your teaching and coaching?

TEACHER MOVEMENT LAB (ESS 226)

Teacher_____ Observer_____

Class_____ Date_____

Starting Time_____ Ending Time_____



Put a tally down only if the instructor speaks to a student or the class. Don't put a tally if they merely walk through the area.

Put the following letters down for a particular teacher behavior.

M = Managerial Comment
I = Specific Instructional Comment
G = General Comment of Feedback
X = Unsure of Feedback (couldn't hear)

Calculate the following:

1. What quadrant did the teacher spend the most time? Why?

2. Why is it important for teachers to circulate while teaching?

3. How can the lab effect your teaching?

*Material taken from Darst and Pangrazi's Dynamic Physical Education and Instruction

APPENDIX B

CLINICAL ASSIGNMENTS FOR GROUP B

ESS 326 (Teaching Methods in Physical Education)

Observation of _____ Observed by _____

Date _____ Grade _____ Time_____

Lesson Focus_____

OBSERVATION B-1

TASK: Diagram the teaching facility and locate equipment, pupils, desk, etc. Locate the teacher and follow the teacher's movement pattern for the class period. Each time the teacher stops put an A, B, C, or D to represent the teacher's position.

A. Able to see all students
B. Able to see 75% of the students
C. Able to see less than 50% of the students
D. Able to see less than 25% of the students

Graph the raw data
Interpret and discuss findings
Draw conclusions, including implications for future action

UW-La Crosse ESS 326
SELF-EVALUATION OF TEACHING

Student _____ Rater_____

Lesson Taught _____

1. Students were appropriately involved		Yes	No
2. The purpose of the activity was made clear		Yes	No
3. Procedures for doing the activity were shown		Yes	No
4. Formations were appropriate		Yes	No
5. Information provided was	About right	Too little	Too much
6. Voice projection was	Good	Too soft	Too loud
7. Enthusiasm shown was	Good	Too little	Too much

Organization for activity was:

_____ Quick and efficient

_____ Somewhat disrupted

_____ Confused

Students were able to initiate the activity:

_____ Quickly and correctly

_____ Quickly but not correctly

_____ Neither quickly nor correctly

The level of skill necessary to do the activity with some success was:

_____ Too hard _____ About right _____ Too easy

The participation level allowed by the activity design was

_____ High _____ Moderate _____ Inadequate

SELF - EVALUATION OF LESSON TAUGHT (ESS 326)

Write a few suggestions that might help to improve your lesson for the next time you use it.

APPENDIX C

QUESTIONNAIRE AND ANSWER KEY

Research Questionnaire

Answer the questions by filling in the bubble corresponding to the most appropriate answer to the question. If you are unsure about the meaning of any question try to answer it as best you can. Do not ask for help, since the important thing is how you answer the questions. Do not write your name on the answer sheet. Be sure to answer the questions rapidly but carefully. Do not spend too much time on one question - your first impression is best. Thank you for taking the time to complete this questionnaire.

1. Which of the skills listed below do you feel a K-3 grade student should be taught by the end of the year?
   A) Punting a self-dropped football
   B) Kicking a moving soccer ball
   C) Striking a pitched baseball
   D) Dribbling a basketball around a defensive player

2. When do you feel is the most critical time to learn motor skills (striking, catching, throwing)?
   A) High School
   B) Middle School
   C) Grades 4-5
   D) Grades K-3

3. What percent of class time at the end of a K-3 grade unit on throwing and catching would you spend on activity/participation time?
   A) 70%
   B) 10%
   C) 25%
   D) 50%

4. If you were teaching a unit to a K-3 grade physical education class at the beginning of the year, which of the following would be appropriate to teach?
   A) Serving a regular volleyball
   B) Volleyball game
   C) Speeds and levels with locomotor skills
   D) Dribbling a basketball around obstacles

5. When would you as a K-3 grade teacher in physical education establish quick routines such as, roll call, lining up and putting away equipment?
   A) This is not important
   B) During the second semester
   C) The first day of class
   D) Only if the class has trouble with this the first day of class

6. If you were to teach a manipulative activities unit to a K-3 grade physical education class which of the following would be appropriate?
   A) Striking a volleyball
   B) Kickball
   C) Floor hockey game
   D) Shooting a basketball at a regulation basket

7. If you were to teach a lesson to a group of K-3 grade students, which of the following would you teach?
   A) Floor hockey, passing a puck and shooting on goal
   B) Archery
   C) Dribbling a soccer ball
   D) Dodgeball

8. Which of the following behaviors do you feel is appropriate for a physical education teacher?
   A) Standing and watching the students practice a skill
   B) Moving and involving yourself with the students
   C) Moving from corner to corner and rating the students according to their skill
   D) Allow students to correct each other as you observe

9. In a K-3 grade class what percent of time at the end of a unit on ball rolling would you spend on management (putting away equipment, forming groups etc.)?
   A) 30%
   B) 50%
   C) 70%
   D) 10%

10. Which skill would not be appropriate to teach a group of K-3 grade students during the first semester of class?
    A) Catching a ball in a scoop
    B) Rolling a playground ball
    C) Throwing to a target
    D) Volleying a ball with a paddle to a partner

11. Which would not be an appropriate skill to teach K-3 grade students?
    A) Balloon volleyball
    B) Throwing a tennis ball for distance
    C) Catching a ball with a scoop
    D) How to shoot a basketball at a regulation hoop

12. Do you feel established start and stop signals are important parts of a physical education class?
    A) Yes, they are important
    B) No, they are not important
    C) Depends on each individual
    D) Depends on the size of the class

13. Which of the following do you feel is not appropriate to teach as a unit to a K-3 grade physical education class?
    A) Throwing and catching
    B) Rolling a ball
    C) Kicking a ball
    D) Basketball, ball handling skills

14. Which skill/lesson would be appropriate to teach a group of K-3 grade students?
    A) Bouncing a ball
    B) Dodgeball
    C) Locomotor skills
    D) Modified kickball (a game where all participate)

15. At what success rate in a particular skill would you as a teacher change to a new skill from the one that is being taught?
    A) 95%
    B) 100%
    C) 50%
    D) 80%

16. Do you feel an effective teacher will allow the maximal number of meaningful practice opportunities?
    A) This is not an important factor
    B) This depends on the individual class
    C) This is a true statement
    D) This is a false statement

17. During the first semester of class, which of the following is appropriate to teach a group of K-3 students?
    A) Soccer strategies
    B) Hopping
    C) Individual rope jumping for aerobic exercise
    D) Team handball

18. Which of the following would you choose to teach K-3 grade students?
    A) Kicking a soccer ball
    B) Serving a volleyball
    C) Line dancing
    D) Hitting a badminton shuttlecock with a racquet

19. Which of the following lists of units do you feel is not appropriate for grades kindergarten to third?
    A) Locomotor skills, balance, and ball rolling
    B) Dodgeball, soccer, and baseball
    C) Throwing, running, and pathways
    D) Modified kickball, striking, and manipulatives

20. Which of the following students do you feel should receive feedback during class?
    A) Those who are having difficulty with a skill
    B) Those who are successful with a skill
    C) Those who need to be disciplined

21. Which of the following lists of units do you feel are appropriate for grades K-3?
    A) Dodgeball, soccer. baseball
    B) Throwing, running, pathways
    C) Volleyball, kickball, T-ball
    D) Square dance, team handball, flag football

22. Which of the skills listed below do you feel would be least appropriate to be taught to a K-3 grade student during the last quarter of school?
    A) Catching a ball while moving
    B) Throwing a ball with a scoop
    C) Bouncing a ball in rhythm
    D) Striking a pitched baseball

23. Which of the following forms of skill modeling would you use?
    A) Teacher and student modeling
    B) Teacher modeling only
    C) No modeling
    D) Student modeling only

24. How often should equipment and the area being used for a class be checked for hazards?
    A) Once a week
    B) Every other week
    C) Once a month
    D) Before every class time

25. Which of the following do you feel is not appropriate to teach as a unit to a K-3 grade physical education class at the beginning of the year?
    A) Balance
    B) Skipping
    C) Rolling a ball
    D) Overhand throw with a basketball

26. Which of the following best describes the experiences in physical education that led you to answer the above questions as you did?
    A) Elementary, middle school and high school
    B) Experiences in college activity and lecture classes
    C) Text books/personal experiences
    D) Others

27. How would you classify your elementary physical education experiences as a student?
    A) Mostly positive
    B) Mostly negative
    C) Some positive and some negative
    D) Not applicable (did not have elementary physical education)

28. How would you classify your middle school physical education experiences as a student?
    A) Mostly positive
    B) Mostly negative
    C) Some positive and some negative
    D) Not applicable (did not have middle school physical education)

29. How would you classify your high school physical education experiences as a student?
    A) Mostly positive
    B) Mostly negative
    C) Some positive and some negative
    D) Not applicable (did have high school physical education)

30. Which of the following is the grade you most likely see yourself teaching?
    A) Elementary
    B) Middle school
    C) High school
    D) Not sure at this time

31. What source do you feel influences your perception of developmental (appropriate skills for skill level) teaching?
    A) Past elementary teachers
    B) Textbooks
    C) Cooperating teachers
    D) University professors
    E) Other

32. What source do you feel influences your perception of effective teaching?
    A) Past elementary experiences
    B) Textbooks
    C) Cooperating teacher
    D) University professors
    E) Other

Biographical Information

33. Gender: A) Male
B) Female

34. AGE: A) 17-19
B) 20-22
C) 23-24
D) 25-26
E) 27 and over

35. Year in school: A) Sophomore
B) Junior
C) Senior

36. GPA: A) 2.50-2.89
B) 2.90-3.00
C) 3.10-3.39
D) 3.40-3.79
E) 3.80 and above

Answer Key For Questionnaire

1. B
2. D
3. A
4. C
5. C
6. A
7. C
8. B
9. D
10. D
11. D
12. A
13. D
14. B
15. D
16. C
17. B
18. A
19. B
20. D
21. B
22. D
23. A
24. D
25. D

APPENDIX D

RESULTS FOR SPLIT-HALVES

Scores For Calculation of Split-Halves

The scores given are the number of questions answered correctly. The first scores (1st) are for the first randomly selected questions (N = 13). The second list of scores (2nd) for each group are the scores for the second randomly selected questions.

Group A				Group B			
1st	2nd	1st	2nd	1st	2nd	1st	2nd
7	8	10	11	10	6	12	12
11	9	5	4	12	8	12	10
10	7	10	9	11	10	9	8
10	8	9	9	12	9	12	8
11	8	10	7	9	10	7	10
8	7	9	7	10	10	11	3
12	7	11	9	9	9	12	8
12	10	11	6	8	7	10	7
9	6	9	9	12	10	8	11
10	10	10	8	10	12	12	11
11	8	9	10	9	8	12	11
7	6			11	9	9	10
9	6			11	9	8	3
				8	9		

APPENDIX E

OVERALL SCORES

Overall Scores For First 25 Questions

Group A		Group B	
22	21	22	24
20	20	22	23
20	20	21	23
19	19	21	22
19	18	21	20
18	18	21	20
17	18	20	19
17	17	20	19
15	17	19	17
15	16	18	17
15	9	17	16
15		17	14
13		17	11
		15	

APPENDIX F

SCORES FOR DEVELOPMENTAL AND EFFECTIVE TEACHING QUESTIONS

Scores For Developmental and Effective Teaching Questions

Group A				Group B			
D	ET	D	ET	D	ET	D	ET
8	7	13	8	6	10	14	10
12	8	5	4	13	8	13	9
10	7	11	8	12	9	8	8
9	9	11	7	12	9	12	8
9	9	8	9	11	8	8	9
7	8	7	9	12	8	5	8
10	9	13	7	10	8	11	9
13	9	9	8	10	5	8	8
8	7	9	9	12	10	11	9
11	9	9	9	12	9	13	10
10	8	12	8	9	8	13	10
8	6			13	8	10	9
7	8			12	8	5	6
				11	6		

D = Developmental ET = Effective Teaching

APPENDIX G

REVIEW OF RELATED LITERATURE

REVIEW OF RELATED LITERATURE

Introduction

The literature documents that students in clinical experiences need to increase their knowledge base for development of future teaching skills. This review addresses two topics presented to the subjects in this sudy during their 20 hour clinical experience. These areas are developmental physical education and teacher effectiveness. A third area not observed by students, but investigated by the study, was the perceptions of the student based on past experience in physical education. The following review of literature will clarify the relationship between these two topics (effective teaching and developmental physical education) and their importance in the education of future physical education teachers.

Developmental Physical Education

Research completed in the last few years expresses the need for a developmental physical education curriculum at the elementary level. This approach is not only based on studies that examined developmental curriculum being used in real education situations (Smith, Carlisle, & Cole, 1991), but studies that relate motor development to this topic (Clark & Whitall, 1989). The term developmental physical education comes from the term motor development.

The development of a child's motor skills begins at the time they are born and continues to death. It is the duty of the physical education teacher to help in this motor development over the small amount of the child's life span that is entrusted to them. To further understand developmental physical education it is important to have a conceptual understanding of the meaning of motor development.

Haywood and Loughery (1987) defined motor development as it relates to maturation of the neuromuscular mechanism which permits progressive performance of motor skills. As a physical educator, once this definition is understood, further details can be processed to use in the development of a physical education curriculum. The necessity of this application is expressed in a review of literature by Clark and Whitall (1989) which related motor development to developmental curriculum. The design of this curriculum must also encompass the developmental factors upon which the motor development is dependent (Gallahue, 1987). A few of these factors as stated by Gallahue are: 1) direction and rate of development, 2) differentiation of sensory and motor systems, 3) integration of sensory and motor systems, 4) readiness for learning, 5) critical learning periods, and 6) individual differences. The complexity of developmental physical education has thus been demonstrated within this definition and therefore expresses the need for teacher

training programs to begin the instruction of students in the knowledge of motor development.

There is also a need to demonstrate the importance for people of all ages to have a knowledge of motor development and its application for development (Clark & Whitall, 1989). Physical education has undergone a major change in curriculum at the elementary level over the last 30 years (Barrett, 1988). There are two approaches to teaching this subject. These approaches are developmental physical education and sports oriented physical education. The parents of children in current programs most likely engaged in a program that was based on sports activity. Therefore, there is a need to make the general public aware of the importance of motor development training to obtain support for developmental physical education.

Some educators feel it is possible to learn motor skills using a sports based physical education curriculum. This may be appropriate at upper elementary and higher grades levels, but is it appropriate at the K-3 level? Ross and Gilbert (1985) reported that students may not be learning motor skills to the extent desired because they are spending more time playing games than actually practicing motor skills. Graham (1987) supported Ross and Gilbert in responding that it is a false assumption that students learn motor skills by playing games. If a child plays a game for hours at a time there could be support for development of

individual skills by playing games. The average physical education class lasts only 30 minutes, not hours. Lastly, Graham felt that if physical education programs were to be rated, ratings would show a need for motor skill acquisition (or improvement) to be included in the program.

Smith et al. (1991) used a developmental physical education curriculum to teach kindergarten children physical education over one complete school year. The students showed a significant difference in the development of skills to a higher level (mature level). It is demonstrated by the Smith et al. study that physical educators are able to teach students necessary motor movements.

A child needs to be able to control all body parts before they can control an external object, which is what is used in almost all sports. For example, a child must know how to bounce a ball in a stationary position before he is able to process the large amount of information of bouncing a ball while moving down a basketball court, avoiding defensive players, observing where his/her teammates are, and determining whether to shoot the ball or pass the ball. The ultimate need for developmental physical education comes down to the physical development of children.

At birth the newborn is not capable of controlling the body in the manner that they are capable at age 15. Motor development gradually changes as one's body grows and changes. These anatomical and physiological changes

require the individual to take time to adjust to the new body they have to move. In developmental physical education the teacher is helping the child adjust to these changes. A brief description and explanation of these changes and the relationship to motor development are described in Haywood and Loughery (1987).

In applying this to the teaching curriculum of physical education, a great need for developmental physical education becomes apparent. There are numerous textbooks (Gallahue, 1987; Graham, Holt/Hale, & Parker, 1987; McClenaghan, & Gallahue, 1978; Nichols, 1986; Siedentop, Herkowitz, & Rink, 1984; Vannier & Gallahue, 1978) that are based on developmental physical education that can be used to express the importance of training children in this area. The authors of these textbooks also stressed the importance of children learning the basics before learning the mature skills when they are not physically prepared to develop at these levels.

The general areas that are encompassed by developmental physical education are best described by Graham et al. (1987). A brief list of those skills to be taught are as follows: bouncing, balancing, catching, throwing, dribbling, fleeing, galloping, hopping, jumping, kicking, leaping, rolling, running, skipping, sliding, striking, stopping, turning, twisting, and walking. These are just a few skills involved in a basic developmental

curriculum. The aforementioned skills would begin to be taught at the K-3 level and be refined, as well as combined and integrated into sports skills in grades of K-6. When instructing children in these skills the teacher not only needs to have knowledgeable of skill instruction they also must have knowledge of what makes a teacher effective.

Effective Teaching

The methods that a teacher uses to present curriculum, monitor growth in knowledge and allow for application of this knowledge to tasks is classified as effective teaching. This is an important part of teaching as is curriculum. Borich (1992) humorously viewed the requirements for being an effective teacher as needing to have the wisdom of King Solomon, Sigmund Freud's insight, Albert Einstein's knowledge, and Florence Nightingale's dedication. These characteristics were how a teacher was judged as being effective a century ago and a teachers behavior in the classroom was secondary to these factor. Borich stated that five key behaviors, more appropriate for the time, contributing to effective teaching are: lesson clarity, instructional variety, task orientation, engagement in the learning process, and student success.

Agreeing with these beliefs are Dunne and Wragg (1994) who feel to help a child to develop in all areas including socially, a child needs a teacher who is knowledgeable and understands the content of the subjects and topics being

taught. This teacher must also possess the ability to manage a class, explain clearly, ask intelligent and appropriate questions, and monitor and assess learning.

In relation to physical education these methods would cover areas such as modeling, establishment of routines, allowance for maximal participation, and knowing when sufficient mastery of a skill occurs so as to teach the next skill. Physical education provides a uniqueness that is not found in the classroom, this being that the children are up and moving, not sitting in desks. This fact demonstrates the imperative need for clinical students to learn effective teaching skills during their clinical experiences so as to master them during their student teaching.

There is conflicting research regarding the amount of time that should be placed on emphasizing effective teaching. According to Lanier and Little (1985) too much time may be centered around classroom management and this may be done at the student teacher's expense. Taggart (1989) stated the opposite, that more time should be spent at the clinical level where future teachers observe more effective teaching methods. Taggart recommended that clinical students should spend as many as 80 hours observing before student teaching. This is based on the fact that frequently prior to student teaching the student spends much time working with peers, not observing physical education specialists using effective teaching methods.

O'Sullivan and Tsangaridou (1992) implied that early field experiences can provide opportunities for preservice teachers to explore the understandings of teaching, schooling and the role of the professional teacher in the education of children and youth. They took this a step further and demonstrated the need to help preservice teachers develop an appropriate perception of what is effective teaching. Effective teaching is important in that students of teachers who have learned these techniques achieve more than students of teachers without training in these skills (Brophy, 1982). Students in classes of teachers who use effective teaching methods not only achieve more, but they also are able to participate in classes that have high activity levels (Faucette & Patterson, 1990).

Clinical students in this study were given information with regard to effective teaching methods. The subjects of this study also observed cooperating teachers and completed evaluation assignments relating to effective teaching. This is the start of training the students to observe teaching methods. Bell, Barrett, and Allison (1985) expressed the need for teachers to learn to focus on and observe lessons. Observation is a skill that will later help the teacher, when they are out in the field, to better and realistically evaluate their own lessons and teaching methods. From these clinical experiences the student can observe the valuable need for effective teaching.

Brophy (1982) noted 10 behaviors or characteristics of teaching associated with significant student achievement. They are: teacher expectations; role definitions; and sense of efficacy; classroom management and organization; a supportive learning environment; active teaching; curriculum pacing; student opportunity to learn; teaching mastery; and grade level differences. From these general areas listed, more specific methods have emerged over the last 13 years.

Siedentop, Mand, and Taggart (1986) reviewed several pieces of literature that observed the percentage of class time spent on management, lecture, waiting to participate and time actually spent doing a task. Their review showed that in an average physical education class the student spent a small percentage of time of actually getting to practice skills. Researchers developed an approximate, most appropriate time percentage for the parts of a lesson, with time doing skills being the largest percentage (Barnes, 1981; Phillips, & Carlisle 1983; Sidentop et al., 1984). Developmental physical education promotes this as opposed to most sport oriented physical education. Therefore, an effective teacher would allow for maximal participation.

Another area in which clinical students need to gain knowledge is mastery of skills. Mastery has roots that go back to the Jesuit schools before the 17th century (Harrison, 1987). The teacher needs to know when the students have mastered a skill and then go on to teaching

children the mature skill (Barrett, Williams, & Whitall, 1992). Harrison stated that advocates of mastery learning demand at least 80% success as a point to go on to the next step.

The next area of effective teaching to be discussed is management time. This area includes time spent going from one activity to another, dealing with student tasks, and giving directions. It is important to have a system of rules to minimize direction giving and class organization (Gage, 1976). Sanford and Evertson (1981) found junior high teachers who spent the first day of class discussing class rules and procedures reduced the amount of time spent on management in later lessons. The major goal here is to get the majority of class time spent on movement by the students while actually practicing the skills.

Mentioned above are just a few of the many effective methods that have been identified in the last 13 years. There are a large number of these methods, yet they have been found to be common across many teacher preparation programs as well as among professionals in the field of physical education. Some factors relating the methods may vary slightly but, as found in research, all are very similar. Rink, French, Lee, Solomon, and Lynn (1994) studied effective teaching concepts presented at University of Southern California and Louisiana State University.

The study showed that most concepts were common in the two schools.

As demonstrated, there are numerous effective teaching methods. The most important factor in the application of the methods is the teacher's knowledge of the individual class characteristics. Certain methods may not be appropriate for one class but important to use with another class. The clinical student will observe these methods and later have to adapt them to the class they will be teaching in the future.

Perceptions of Clinical Students

An individual's perception of what should be taught in physical education and what is effective teaching is influenced by past personal experiences in physical education and in other subject areas classrooms. In realms outside of schools that guide students' perceptions are programs that students participate in and may have the similar responsibility as that of a teacher. Lanier and Little (1985) described these settings as camp counselor, teaching Sunday school, and serving as a teacher aide. According to Lanier and Little these experiences prior to college teacher preparation programs emphasize nurturant instincts over intellectual capacity. These students as they enter college often need to be retrained to realize that there is a vast wealth of knowledge they need to obtain. This includes an understanding of curriculum and

teaching effectiveness techniques.

In the area specific to physical education, Allison, Pissanos, and Sakola (1990) found that education majors enrolled in an elementary school physical education methods course frequently view their past (elementary, middle, and high school) physical education experiences as negative. Allison et al. found further perceptions of these future classroom teachers to view physical education as sport activity.

The perception of classroom teachers may come from their own experiences as well as what they observed the physical education specialist teaching to students. There are many physical education teachers that teach by having students do a sport activity the entire class time. Many clinical students have gone through physical education programs that based their curriculum on sport activity. These factors frequently guide students' perceptions of what should be used as curriculum in physical education.

Knowing that students come into teacher preparation programs with their own perceptions, the next step is to observe if the programs can have an effect on these perceptions. A review of literature by Zeichner (1986) relating to the effect that teacher preparation programs have on students showed that there are arguments for the fact that some programs affect the students and some do not affect the student. Wendt, Bain, and Jackson (1981) and

Schemp (1985) found that after completing a student teaching program the attitudes of student teachers did not change. The opposite side of this is a study by Paese (1987) who reported that during field experiences the perceptions of preservice teachers can change to represent those that are more appropriate for the field of physical education. There is a chance, therefore, that teacher preparation programs can sway preservice teachers to become promoters of developmental education.

Paese (1987) stated that we can change students' perceptions but is it possible to get the teachers to apply these changes once they are out in the field on their own. Teachers in the field may gradually revert to teaching as they were taught prior to college clinical and student teaching experiences. Graber (1990) expressed that it is common for student teachers to return to their own methods and beliefs once they are out in the field teaching.

By researching the studies on the perceptions of preservice teachers it becomes evident that much of this literature shows that the perceptions of past physical education experiences are negative. There is little research done relating perceptions to developmental physical education. In summarizing reviewed research in this area it would have to be said that this research leaves a negative impression of what clinical students perceive in relation to

developmental physical education, effective teaching, and their own past experiences.

Conclusion

The future physical educator is a person who has had a wide variety of experiences prior to coming to teacher preparation programs. They have had many years to develop ideas and feelings of what makes a successful teacher. It is the job of the programs to prepare these students to train the youth of the country in motor skills. Thus, the most important experiences of teacher preparation occurs with the first time the student experiences instruction on how to teach.

Beginning with developmental physical education it is important to reinforce this concept so as an end result teachers can help children develop motor skills that will help them move their bodies efficiently. The many studies discussed demonstrate the importance of this area. Learning should be done with small steps when developing motor skills as while as in learning how to teach developmental physical education and effective teaching.

The studies mentioned have shown that there is a unity in the need to teach preservice teachers effective teaching methods. There is little research that opposes the instruction in effective teaching. Teachers may not use effective teaching methods though even if they have been instructed in their application.

In physical education steps need to be taken to ensure future teachers understand the necessity of a developmental curriculum and the importance of effective teaching.

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