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ABSTRACT

This paper discusses the potential value of field experience for student teachers in physical education. Emphasis is placed upon the importance of observation of behaviors in the students, with constant assessment as the instrument by which such behaviors may be modified and improved. Preferred methods of observation are described, and the evaluation process is examined as a means for positive reinforcement of good teaching skills. (JD)

TEACHER ASSESSMENT IN PHYSICAL EDUCATION

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There is a strong trend in our field toward greater emphasis on field experience in the training not only of teachers, but also sports administrators, athletic trainers, and other professionals currently subsummed under the umbrella of physical education. This Conference is further evidence of that trend, as is witnessed by the morining program devoted to problems of planning, implementing and supervising clinical and field based experiences. Administrators, too, are becoming more sensitive to their responsibilities as supervisors of teachers. Once can expect that the many pressures which together increase the potential for accountability in teaching will influence administrators to assess teachers in a much more systematic and defensible manner than heretofore they have either wanted or been able to do.

You ought to know at the outset that I am committed to a strong advocacy for teacher assessment both at the preservice and inservice levels. Furthermore, I am committed to a kind of objective teacher assessment that requires the utilization of observation instruments that record systematically how teachers behave while they teach.

There are several lines of argument that can be pursued in defense of this advocacy. Let me describe briefly two arguments that I find especially persuasive.

Accounting for and verifying change

Implicit in any clinical and/or field experience is the notion of change. Training programs include experiences because they are believed to contribute to increased professional competence. Certainly, some of the important changes

might be internal; i.e., attitudes, values and feelings about students or one's own self image. While these internal states cannot be observed directly they can be assessed systematically if a training program valued them as high pay-off objectives. But, almost all training programs I know, regardless of how highly they value change in the internal, affective dimensions of behavior, also expect changed performance, a changing level of teaching skill development; in short, change in overt teaching behavior.

It deserves to be noted that those who are most interested in the affective, and have also kept up to date with research in that area, know that the best current evidence indicates that attitude change is much more likely to follow behavior change than vice versa; i.e., if you are really interested in changing values and attitudes then your best bet is to change behavior, knowing that the attitudes and values will likely follow.

In order to measure change in teacher behavior, to ensure that it happened, to testify to its efficacy, one has to assess the behavior of the teacher on some systematic basis. The number of assessments necessary to feel confident that change did indeed occur would be, at a minimum, three observations at the beginning of an experience and three towards the termination of the experience. This kind of pre-post approach would at least allow one to be fair in appraising an intern or a teacher and have some confidence in the data generated. It would, of course, in no way allow one to know when change occurred, or why it occurred, and one could hardly take credit for that change if it did occur.

If one really wanted to set out to effect change and be able to verify that changes in teaching performance were indeed the result fo some programmatic intervention, then assessment would have to take place on a very regular basis--and when I say regular the term that seems to pop into my head is "daily."

This frequency of assessment is necessary because the level of response

produced feedback--what is called intrinsic feedback in motor learning jargon--is quite low in teaching, hard to decipher, rarely specific, and difficult to sort out considering the host of stimuli that teachers need to attend to while they teach. Teachers can learn to be better interpreters and processors of their own teaching behavior as they teach--or reflecting on it after they teach--but that skill comes only after large numbers of repetitions in which they have a chance to match their own "guesstimates" with some objective comparator; i.e., objective assessment of their behavior from an outside source.

It is our experience, based on a long series of experimental projects focusing on behavior change during the student teaching experience, that interns can change their teaching behavior quickly and often dramatically if they are given specific objectives, some instructions about what to do, and precise feedback related to the objectives. To the extent that the objectives are imprecise and the feedback vague and irregular, the change occurs less quickly and less dramatically.

So, whether one wants merely to demonstrate that change has occurred, or whether one wants to go further and account for and verify those changes, systematic teacher assessment is essential.

I should digress here to speak momentarily to the notion of qualitative versus quantitative assessment. I have never suggested anywhere that systematic objective assessment based on observational data either takes the place of traditional clinical supervision, or in and of itself, constitutes clinical supervision. It is my judgment that systematic observational data should provide the foundation from which a total supervision system is built. Qualitative data, hints from experienced professionals, critical incident techniques, and counseling techniques all have their places. My contention is that each of those efforts is made even more meaningful when pyramided on a solid base of empirical data.

What happens in a clinical and/or field experience?

A second argument that is supportive of an advocacy for systematic teacher assessment focuses on the mythology that field experiences, by their very nature, contribute to the positive development of the professional teacher. Somehow we cling with naive optimism to the notion that putting our trainees in contact with reality situations is, by definition, helping them to become better teachers. How soon we forget that microteaching was developed at Stanford University, partially at least, in order to limit the need for interns to have field experiences, and therefore get contaminated by that experience.

Is our personal experience so dramatically at odds with what research shows so clearly? Or, is there some reason why we choose to ignore both our own experience and research? Although a few positive findings pop up here and there, any fair summary of the research which focuses broadly on the question "what happens to an intern during a field experience" would be pessimistic and negative. Fuller and Brown (1975) in their classic NSSE Yearbook chapter "On becoming a teacher" conclude the following:

> Most studies, however, find few benefits and many noxious effects, particularly during student teaching. Student teachers become more impersonal; more negative, rigid and authoritarian; and change from a humanistic to a custodial approach, stressing bureaucratic order and control. (pp. 41-42)

No doubt each of us can identify students for whom the student teaching experience has been of immense value. I do not question this. Indeed, I believe that field experiences have the potential for great positive impact on the development of teaching skills. But, I see no way for this to happen systematically (this grants that it might happen occasionally even with current practices) unless interns have specific objectives to achieve and regular, precise feedback about their progress in achieving those objectives. This makes systematic teacher assessment a necessary part of field experiences--reason enough for my advocacy of teacher assessment.

Our own data at Ohio State fall generally into line with the typical research findings on the effects of field experiences. Lately, (Hutslar, 1976; Cramer, 1977) we have taken to assessing a control group of student teachers who are supervised in whatever constitutes a "typical" or "traditional" model--and I might say with all sincerity that at Ohio State the typical supervision performance is probably better than most programs are able to muster, mostly because our Student Teaching Coordinator puts a great deal of effort into seeing that a good job is done. Still, although our early assessments show no difference between control student teachers and those in our experimental program, observations done toward the completion of the experience do indeed show differences. The fact that the experimentally supervised student teachers improve more than controls is not surprising--that is what the program is designed to accomplish. But, what is more revealing is that in the teacher behavior categories assessed in this particular model, the control student teachers not only don't improve as much as the experimentals, they don't improve at all. In fact, observations on controls toward the end of student teaching reveal patterns of performance that are inferior to those shown early in the experience.

So, from the points of view of wanting to understand and be responsible for change during a clinical and/or field experience, and of making sure that what happens during those experiences are contributory to the professional growth of the teacher, an advocacy for systematic teacher assessment can be defended.

I hope that the picture I have sketched thus far does not appear to you as full of blacks and grays. When I talk about systematic assessment of teaching I usually rely on bright yellows and cheerful reds. I am convinced that a substantial number of important changes can be effected through the use of systematic assesment of teacher behavior during a clinical and/or field experience. After five years of experimental research in the student teaching program, I feel that I understand fairly well the possibilities and limitations. I'm not sure the

starry-eyed, save-the-world activist I was when we started. That stance has been replaced with a sure confidence that comes only from seeing data showing positive results replicated across experimentors, subjects, settings, and time. I do not know if the visions I have about how things could be in the preparation of physical educators will ever be realized in any teacher education program. I worry less about that now than I used to. I am sure that things could be different, dramatically different. And, I am also convinced that systematic observation of teachers teaching is absolutely foundational to any changes that might be effected.

The not so mysterious art of observational recording

One of the things we all were taught as undergraduates, and had re-emphasized in graduate school, was that research was mysterious and that only those possessing certain difficult to master skills could engage in it. For some reason, that attitude has generalized to observational recording techniques. I suspect that many in physical education do not engage in systematic observational data collection because they assume it requires skills that would take years to master and would, even then, be difficult to understand.

There are times when I feel motivated to maintain that particular bit of mythology simply because it inflates my ego a bit to be perceived as one possessing such magical skills. On the other hand, since our sophomores become reliable observers in approximately three hours, it is a difficult mythology to maintain because anyone who tries it recognizes immediately how easy it is. Thus, it appears that honesty in this case is the best policy.

There are several skills associated with the collection of observational data that must be mastered in order to engage in this process successfully. First, one must be able to come to some agreement with one's co-workers on what constitutes a specific behavioral definition; i.e., you and your colleagues have to agree on

what is a feedback statement or an indirect question. That is the most difficult skill and will continue to haunt you. Problems in observational data are almost never in the skills of the observers and almost always in the definitions with which they are working.

A second skill is counting--one, two, three, four five...very seldom beyond twenty so most of us are safe. A third skill is monitoring time segments--that sequence started at 10:10 and ended at 10:10 30. A fourth skill is looking on cue at a teacher teaching and making a decision, from a group of categories, about which category best represents what you just saw. Someone just cued to observe me would be recording a "lecturing" symbol for that interval. A fifth skill is computational. 10:10:30 minus 10:10 equals 3:30. Four plus five plus four all divided by three equals 4.3. You can get much more complex than that, but for supervision purposed I've yet to see how more complex manipulations of data can be terribly useful.

So, let's put to rest the notion that systematic observational data are not collected because the skills are too difficult or time consuming to master. They are easy to learn. Surely, one gets better at them as one's experience grows and new systems can be learned quite easily after having worked with many different systems.

Which observation system should be used?

Having decided to utilize systematic observation, one must then select a system. The choices are virtually limitless. Mirrors for Behavior is now up to its 20th volume of observational systems designed for various aspects of teaching. Even in physical education, a growing number of tested systems is now available. Larry Locke (1976) suggested that new systems should not be developed until ones currently developed have been shown somehow to be inadequate. He was talking about research and for research purposes it is helpful if data can be generated from

similar systems. Simply put, it increases the generalizability of findings. For supervision purposes, however, I am very much in favor of "locally developed" systems. Each program has slightly differing emphases for undergraduate majors. I feel strongly that systematic assessment of field experiences should reflect directly the goals of those field experiences.

Indeed, one of the major benefits of incorporating systematic observation into your programs is that it requires you to consider seriously and specifically what each field experience is intended to accomplish. For example, teacher education faculties together with public school physical educators should decide on what goals should be achieved in an elementary methods field experience. A system should then be developed to assess progress towards those goals in some very explicit and direct manner. It is highly unlikely that the Cheffers Adaptation of the Flanders Interaction Analysis System (CAFIAS) or any of the many variations of the Ohio State Teacher Behavior Scale would meet the needs of those situations. It is true that specific categories or definitions or methods of assessment can be lifted from several systems to build an "eclectic" system that seems to meet local needs. Thus, familiarity with many systems increases the probability of building a satisfactory local system. But, the bottom line is that adapting the goals of your field experience to the categories of an established system is akin to the tail wagging of your dog. The goals should be defined first, and then a system developed to assess performance relative to those goals.

Supervision versus research

The kind of system you develop should reflect on the purpose for which it is used. Descriptive-analytic research or experimental research usually require very extensive observation systems with many categories. For supervision purposes the categories should be more limited. Interns can accomodate only a limited number of changes during a field experinece and it is our conclusion that

attempting too many changes probably minimizes the effectiveness of changes you do effect.

I'd like to illustrate this with two types of observation systems we are currently utilizing. The first type of system is for descriptive-analytic research. Dr. Garry Moore (1976) and I developed this one for research in an elementary

insert figure 1 here

school and in an elementary resident camp experience. Notice that there are numerous categories for both students and teachers. We were watching four teachers and eight students over a period of three weeks. Each observer would alternate between an interval of teacher observation and an interval of student observation. The cue as to when to observe the behavior was provided by a preprogrammed cassette tape recorder worn in a pouch at the waist with an ear jack so as not to intrude on the educational setting. For each interval the observer made two decisions. The first was to record what the "climate" of the setting way; instructional or management for example. Next you decide which behavior category best characterized what you saw the teacher or student doing during the 6 second interval in which you just observed.

A second example of this type of descriptive-analytic system is the one Mike Stewart (1977) and I developed for a recent project. As you can see, the

insert figure 2 here

Stewart instrument is a descendent of the Moore instrument. Here there are three decisions for each interval, a climate decision, a teacher behavior decision, and an interaction decision. Thus, for any 6 second interval one might find a teacher managing behavior that occurred during management time and was directed to an individual male student. This interval would be interpreted differently than an interval in which a teacher managing behavior occurred during instruction time and was directed to the class as a whole. The teacher behaviors recorded in those two

intervals are members of the same category, but they occurred in different contexts and had different interaction patterns. I think you can see that this leads to a level of complexity totally inappropriate for supervision purposes.

The second type of observation system I'd like to share with you is that developed for supervisory purposes. This instrument was developed by Dr. Carolyn Cramer (1977) and me for her dissertation research. It is a direct outgrowth of the system Dr. Jim Currens (1977) and I developed for his field experience program at Baldwin-Wallace College.

insert figure 3 here

Three types of observations are made on this instrument. The horizontal time lines are used to record changes in class climate among time defined as instructional time, activity time or management time. The time line allows for 50 minutes of recording and we differentiate among the various changes in class climate by drawing a line through the box at the time when the climate changes. The small boxes that appear below the time lines are for making periodic checks about what the class as a whole is doing. We call this group time sampling or placheck recording, which is a kind of acronym for Planned Activity Check. We make plachecks at the 3, 8, 14, 20, 26, 32, 38, and 44 minute marks during our observation session. We can make either one or two plachecks at each mark--in this system we made two. One check counted the number of students behaving appropriately according to definitions we had worked out with the teachers. The second placheck counted the number of students involved in what we call "active learning," which to us means actual physical involvement with the learning activity. Each placheck takes about 10 seconds to complete, so the time devoted to this part of the observation format is quite small. By spacing the plachecks periodically throughout the period, we get a fair sample of the students' behavior in these two categories. These observations give us data relevant to goals dealing with maintaining adequate levels of appropriate behavior and involving

students directly in learning activities.

The boxes toward the bottom of the sheet are for recording teacher interactions in two basic categories, skill feedback statements and behavioral interactions. We have subdivided those categories for our own specific teaching goals. The darkened areas on the time lines indicate those times when the observer records instances of those teacher behavior categories. Again, we space these frequency counting periods intermittently throughout the period in order to get a fair sample of the teacher's behavior. The observations are summarized in the appropriate places. Here we have looked only at a few teacher behaviors and a few student behaviors. We can summarize the data immediately and feed it back to the intern in a very understandable way. Further analysis of the data might reveal more sophisticated kinds of information, for example that a particular intern might have high frequencies of "nags" during management time. The total "picture" developed on this one observation sheet allows to understand a great deal about how the class was taught. This instrument has proven to be very useful for supervision, and, in our program, for research about supervision. I think it would not be very useful for descriptive-analytic research or for some more total experimental effort in the area of teacher effectiveness research.

Who does the observations?

For many of you who may have stayed with me to this point, I suspect that a common question has arisen. "This is all neat," you say, "and I agree with you in principle, but who will do all of this observing?" Most college and university teacher education programs have fewer resources per student than they did 10 years ago and they couldn't afford very regular supervision then. At Ohio State our minimal expectation is six supervision visitations in a 10 week quarter, and we think we are doing quite well to operate at that level.

There are several ways around this issue and one way directly through it

to a real solution. We have tested them all in our experimental supervision research program, so I offer them on the basis of experience and I can direct you to the data which support them if you want sometime to see the facts.

There are two ways around the "frequency of supervision" problem that have been tested and will work. One way (Dodds, 1976) is to place student teachers in pairs and have them collect regular data on one another's teaching. A second way (Dessecker, 1976) is to have students wear a small cassette tape recorder, fitted with a lapel microphone, and tape their own teaching lessons, coding them later in the day themselves. I should make very clear that in these two models a clear distinction is made between data collection and supervision. Students can collect data on themselves or their peers, but they should not be placed in roles where they make supervisory judgments about one another. Our experience has been that in the peer model they help each other tremendously and when the supervisor does come, there is a wealth of data which can be used for the clinical supervisory conference.

As much as I value these models, they are in a sense "end runs" around the problem of frequency of supervisory contacts. In the final analysis, there is only one legitimate solution--and, being from Ohio State, I choose to characterize it as one which plunges directly through the problem, my version of "three yards and a cloud of dust."

There is, in my judgment, only one final solution to all problems of supervision of field experiences, and that is to turn over the major responsibility for supervision to the person who is already there, who will be there throughout the experience, and who will be there again when you want to place another field experience group or student. I'm talking, of course, about the public school physical educator, the person to whom we have heretofore attached the dubious label of "cooperating teacher."

We have tested this model too, both at the elementary level (Hutslar, 1976) and at the secondary level (Cramer, 1977). It works. There is no role conflict between the specialist in the school and the university supervisor because the roles have been merged and vested in the public school person. Having the responsibility for supervision and the authority for actually implementing and evaluating the experience has, in our experience, greatly enhanced the role for the specialist. They enjoy it. They do an absolutely super job. Certainly, they have to be trained to collect observational data and, in our model, we help them re-arrange their own teaching behavior, if need be, so they can better model the skills that are the major focus of the experience. But, after that, we step back and become a consultant for them and do not interfere unless asked. They collect regular data, so we have those data as a measure of accountability for what goes on in the field experience.

There are problems with this model. Right now, our biggest problem in implementing it on a wider scale than we have experimentally, is getting through the normal exchange of services agreement we have with our local county teacher's organization. The impediments are mostly bureaucratic and institutional, not pedagogical or conceptual. We have talked about a partnership with schools for the betterment of teacher education for a long time. I'm amazed at how solidly entrenched the traditional roles have become. We have a model. We can show that it works. Both major parties to the model, the university department and the individual specialists in schools, want it to happen. But, we've not been allowed to implement it on a larger scale. We are perservering.

Teacher assessment has kind of a nasty ring to it. I guess we have had too many midterms and finals to respond with positive emotions to anything that comes to us under the umbrella of assessment. But, assessment need not be a negative, destructive experience. Many of our students actually get to the point where they can't wait to get their feedback after they teach. The judgmental

overtones have fallen away. What is left is the knowledge of progress towards goals and the satisfaction of improvement. When you have reached that level of interaction with your interns, you really have a chance to make things happen. Why not try it? You might like it!

Class/Camp Schedule

I-Instructional Ft/F-Free Time-Recreational
M-Meal Time C-Class/Camp Time

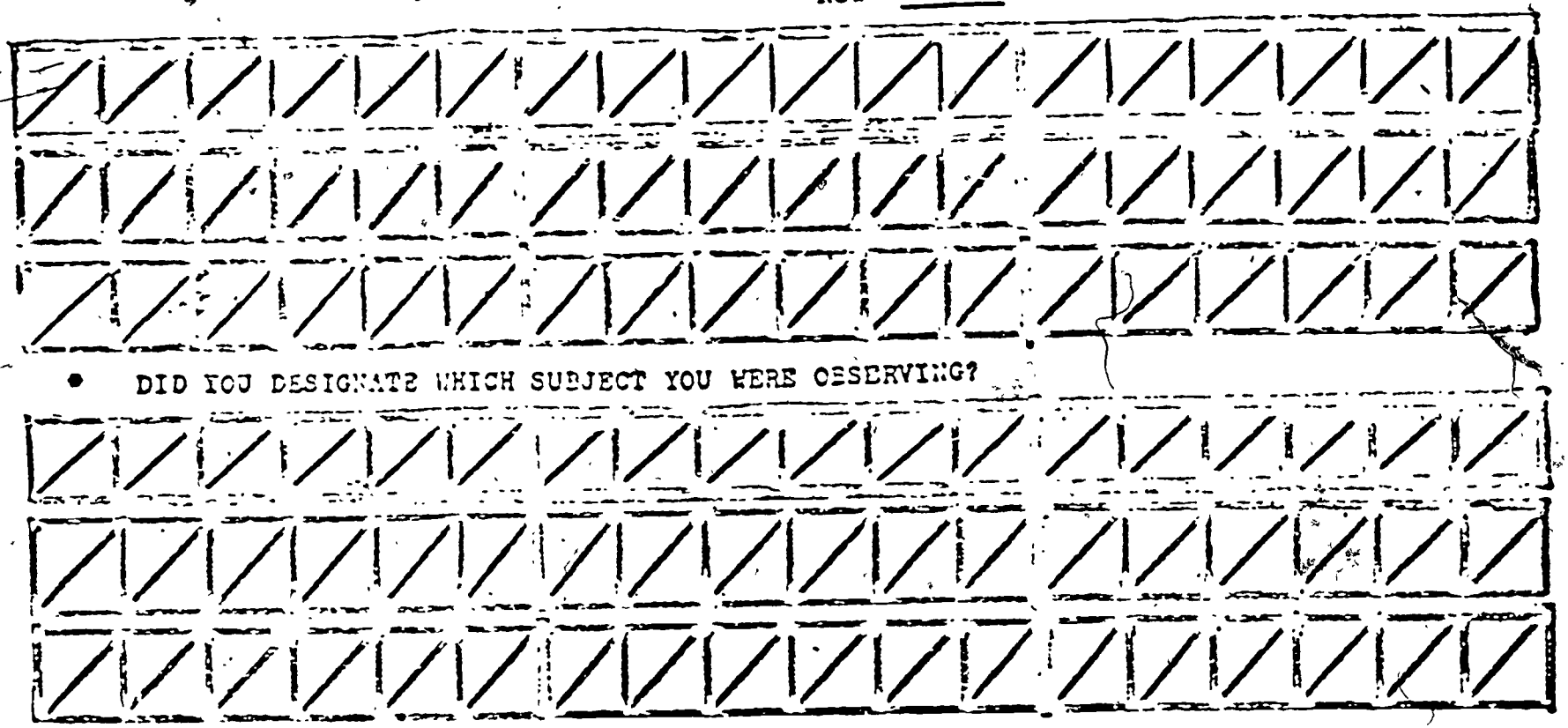
RELIABILITY CHECK

PAGE _____ BLOCK _____

ROW _____

PAGE _____

FIGURE 1



• DID YOU DESIGNATE WHICH SUBJECT YOU WERE OBSERVING?

TEACHER CODING

L-Lecturing
SI-Sensory Instruction
PI-Passive Instruction
DS-Leading Discussion
FB-Giving Feedback
P-Praising
MA-Managing
MO-Monitoring
MD-Modeling
R--Reprimand
AR-Active Recreation
PR-Passive Recreation
HK-House Keeping
PM-Personal Management
CP-Camp/Class Participation
W -Waiting
H -Hanging Around
EX-Exploring Natural Environment

STUDENT CODING

L -Listening
IP-Instructional Participation
SL-Sensory Learning
SLW-Sensory Learning w/Watching
PL-Passive Learning
M -Management
S -Solitude
D -Disruptive
OT-Off Task
H -Hanging Around
W -Waiting
HK-Housekeeping
PM-Personal Management
AR-Active Recreation
PR-Passive Recreation

Interaction - Attachable to all previous codes.
S - Student Interaction
T - Teacher Interaction

OBSERVATIONAL RECORDING RECORD

Recorder _____ Teacher _____ School _____ Page _____

Grade _____ Environment _____ Activity _____ Date _____

Time Started _____ Time Finished _____ Reliability Check: yes _____ no _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C																				
B																				
I																				

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
C																				
B																				
I																				

	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C																				
B																				
I																				

	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C																				
B																				
I																				

FIGURE 2

ESTIMATE		BEHAVIOR					
Management	M	Lectures or Orients	LO	Teacher Modeling+	TM+	Skill Feedback General+	FG
Instruction	I	Asks Questions	AQ	Teacher Modeling-	TM-	Skill Feedback Specific+	FS
Activity	A	Answers Questions	WQ	Student Modeling+	SM+	Skill Feedback General-	FG
Waiting	W	Listening	L	Student Modeling-	SM-	Skill Feedback Specific-	FS
		Monitoring	MO			Skill Feedback Corrective	CF
INTERACTION		Nonfunctional	NF	Praise General	PG		
Individual	I	Managing	MG	Praise Specific	PS	Teacher Officiating	TO
Group	G			Nags	N	Teacher Participation	TP
Class	C	Physical Contact	PC	Nasties	N-		
		Hustles	H	Punishment	P		
Male	M						
Female	F						

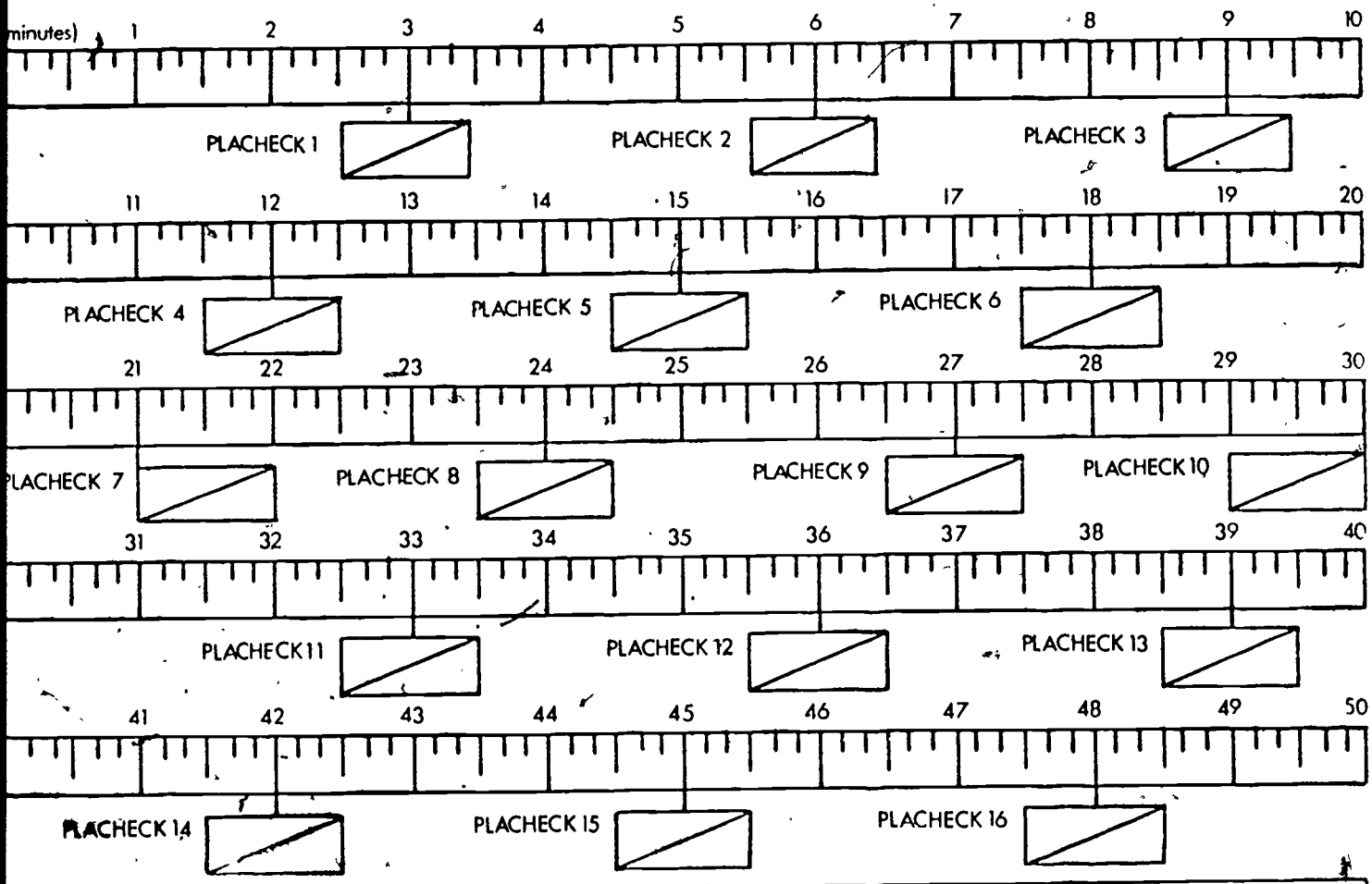
RECORD OF STUDENT TIME ALLOTMENT IN CLASS, BEHAVIORAL INTERACTIONS AND SKILL FEEDBACK STATEMENTS

OBSERVER _____ DATE _____ SCHOOL _____ GRADE _____ ENVIRONMENT:

TIME STARTED _____ TIME FINISHED _____ TOTAL MINUTES OBSERVED _____ EXPERIMENTAL _____

NUMBER OF STUDENTS IN CLASS _____ ACTIVITY _____ STUDENT TEACHER _____ GENERALIZATION _____

(TIME ANALYSIS CODES: I- INSTRUCTION; A- ACTIVITY; M-MANAGEMENT)



TIME ANALYSIS

TOTAL MANAGEMENT TIME _____

% MANAGEMENT TIME _____

TOTAL INSTRUCTIONAL TIME _____

% INSTRUCTIONAL TIME _____

TOTAL ACTIVITY TIME _____

% ACTIVITY TIME _____

SKILL FEEDBACK STATEMENT					
POSITIVE		CORRECTIVE		NEGATIVE	
GENERAL	SPECIFIC	GENERAL	SPECIFIC	GENERAL	SPECIFIC
TOTAL					
RATE P/M					

BEHAVIORAL INTERACTIONS			
POSITIVE		NEGATIVE	
GENERAL	SPECIFIC	GENERAL	SPECIFIC
TOTAL			

figure 3: supervision instrument

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