In order to accommodate both the formal and informal curriculum and to best satisfy the philosophy of a school district, the development of educational specifications is prerequisite to the process of designing a school facility. Educational specifications consist of a series of interrelated statements that describe the physical requirements of the program which are later translated into the physical plant. Included within these specifications are clear and precise descriptions of learning activities to be housed in the school, their spacial requirements, special features of the areas to be included, and the relationship of these learning areas to one another. This paper presents a description of a series of workshops designed to acquaint teachers with the paradigms of educational specifications with the aim of preparing them to participate with an architect in designing a school facility. (JD)
A PARADIGM FOR TEACHER INVOLVEMENT
IN THE DEVELOPMENT OF EDUCATIONAL SPECIFICATIONS

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Rationale for Teacher Involvement

The advent of the democratic leadership style has led school districts to draw on the expertise of their teaching faculties. Teachers have been increasingly involved in developing evaluation instruments, providing input in school board policies and also influencing an array of other aspects that directly affect the operation of the school.

As a matter of course, curriculum development has been almost exclusively the domain of teachers. Conversely, school boards often hire an architect to design a facility without a set of prepared educational specifications, assuming that the architect has both design and educational planning capabilities. Exclusive use of the architect is unwise since he is not an educator and may, as a result, rely on the production of plans similar to those previously designed for other school districts. This may be disastrous because a design that compliments one district may be inappropriate for another school.

In order to accommodate both the formal and informal curriculum and to best satisfy the philosophy of a school district, the development of educational specifications is prerequisite to the design process. The formal contributions of those who understand
what will be taught and how it will be taught greatly enhance the possibility that the facility will meet the educational needs of the district.

Purpose

The purpose of this paper is to present a paradigm for teacher involvement in the development of educational specifications. This model was utilized in designing the Horace Elementary School in the West Fargo School District, West Fargo, North Dakota.

Definition of Educational Specifications

Castaldi (1982) defined educational specifications as the link between the educational program and the school facilities. Educational specifications consist of a series of interrelated statements that describe the physical requirements of the program which are later translated into the physical plant. Included within these specifications are clear and precise descriptions of learning activities to be housed in the school, their spatial requirements, special features of the areas to be included and the relationship of these learning areas to one another.
The Castaldi model also includes numerical aspects, such as the number of students enrolled and the size and number of instructional spaces. Careful attention is also given to special features included within the plant. Consideration is allowed for shape, acoustical treatment, lighting requirements and other factors of the physical environment that may impact on the teaching-learning process.

The Process

Shortly after initiating the building process, the Board of Education decided to include teachers in the planning of the Horace Elementary School. In order to include as many teachers as possible, various incentives were considered. Contact with North Dakota State University led to arrangements for two professors with expertise in school plant planning to serve as workshop facilitators. After considering the time commitment, it was decided to offer three quarter hours to those desiring graduate credit. As the workshop progressed, it was discovered that the greatest teacher incentive was self-motivation stimulated by the opportunity to influence the design of the facility where they would later be housed.

The first evening's agenda covered five items. First, the course requirements were reviewed with the participants. Next,
considerable time was spent reviewing the basic procedural sequence in a school building program. Following a question and answer session, the basic procedural sequence was put in the context of the West Fargo School District by the Superintendent.

The third agenda item focused on the development of educational specifications. Referring to Castaldi's model, the university facilitators explained the purpose and components of educational specifications. Examples of educational specifications were provided to each participant.

Next, the architect employed by the district addressed the topic of translating educational specifications into design. This presentation focused on the use of information provided by the teacher in describing instructional spaces that would best accommodate the teaching-learning styles.

A question and answer session concluded the presentations on the background information. It should be noted that throughout the first evening, each presenter indicated the importance of faculty input and reiterated the fact that the benefits of teacher involvement accrued back to those individuals who would in the future be teaching in the physical facility.

Participants were then divided into groups of five, all responsible for teaching the same grade level. The assignment was to begin developing educational specifications for the instructional spaces they would utilize.
During the subsequent meetings, the process of drafting educational specifications continued. An important component of these sessions included the availability of resources. In addition to making printed materials accessible, the architect, two university facilitators, school administrators and the Director of Buildings and Grounds advised each group on request.

Upon completion of the first draft of the educational specifications, each group duplicated copies or all the participants followed by an oral presentation. Each set of specifications was analyzed and critiqued. Suggested alterations were taken back to the group and incorporated into final draft form.

The architect met with each group to consider the final draft and in turn incorporated the desired specifications into the shop drawings. At a later meeting, the drawings were presented to the participants for final approval. Additional alterations were discussed and included where feasible.

The Paradigm

The following paradigm for involving teachers in the development of educational specifications was used in designing the Horace Elementary School in the West Fargo School District, West Fargo, North Dakota. The paradigm presented in this section can be adopted in its entirety, or alterations can and should be made to best accommodate the needs of the specific school district.
The paradigm consists of the following four stages: (1) Motivational Stage, (2) Familiarization Stage, (3) Developmental Stage, and (4) Review Stage. Each stage is discussed at this point.

Motivational Stage. The motivational stage is divided into two distinct parts. The first part is defined as the intrinsic phase. This phase is characterized by the individual teachers' own desire to become involved knowing that their input will survive the life of the building. Satisfaction is also gained by believing that their involvement will result in a facility that better conforms to specific teaching-learning styles.

The second part of the motivational stage includes the extrinsic phase. The purpose here is to reinforce the intrinsic phase by providing external motivations for the teacher. In the case of the West Fargo School District, three graduate credits were offered that would be accepted toward a degree program, used for advancement on the salary schedule or be applied toward teacher certification renewal. Examples of additional motivational factors that may be used include released time, salary incentives and recognition by the school board, community groups and/or teachers' professional organizations.

Familiarization Stage. This stage is critical since most teachers lack knowledge concerning the building process. To compensate, considerable time should be dedicated to the basic procedural sequence in a school building program generic to all school districts followed by a presentation, preferably delivered by the Superintendent, focusing on the scheme of the building.
program in the specific district. The third presentation should concentrate on development of educational specifications.

A final presentation, given by the architect, should focus on translating educational specifications into the design of the plant. The architect should reiterate that teacher input is highly valued while dispelling any concerns that ideas generated by the faculty will be discounted.

**Developmental Stage.** Although several alternatives exist to facilitate input, grouping permits an exchange of ideas and fosters cooperation among those utilizing the same instructional spaces. A group configuration of five teachers all instructing the same grade level is recommended. If the number exceeds six, consideration should be given to formulating additional groups while allowing for the possibility of frequent interaction during the writing of the educational specifications.

The necessary resources should be made accessible to all groups. Availability of printed materials and knowledgeable individuals can answer questions and provide suggestions that may alleviate frustration and expedite the planning process.

**Review Stage.** This final stage occurs after the architect has incorporated the educational specifications generated by the teachers into the working plans. The plans are considered and additional suggestions are made. This process continues to cycle until satisfaction is obtained by both the teachers and architect. It is at this stage that closure is reached.
Concluding Remarks

This paragigm was not intended to be the panacea for facilitating teacher input in developing educational specifications. Rather, its intent is to provide a base from which modifications can be made to best gain input in designing the physical plant. Therefore, the design of any model soliciting teacher input should reflect the unique differences of the school, its philosophy, goals and objectives.
Bibliography


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Educational Facilities Laboratories, Inc.
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