THE DEVELOPMENT OF MOBILE INDUSTRIAL ARTS AND HOME ECONOMICS MODULES IN RURAL MANITOBA: A CASE STUDY

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Ronald Charles Dalby

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ABSTRACT

The purpose of this case study was to trace the development of a concept involving mobile industrial arts and home economics modules in rural Manitoba. The areas of major emphasis were the cooperative ability of rural school divisions, justification of an industrial arts and home economics program and the justification of mobile facilities.

In tracing the concept from its initial conception in December, 1973, to its approval by the Manitoba Department of Education in February, 1976, information was derived from letters and correspondence, official School Board minutes, surveys of students, parents and teachers and conversations with various members of the Department of Education.

Discussion of the mobile delivery system of industrial arts and home economics included the following major positive aspects:

1. The alleviation of the additional time and expenditure of busing some of the students to permanent facilities located elsewhere.

2. The elimination of possible community rivalry over the location of a single permanent facility in the area.

3. The encouragement in the sharing of educational and community programs by the participating communities.

4. A reduced capital investment when compared to hard site construction.

5. The capacity of retrieving and re-assigning a mobile unit if the unit becomes redundant.

From the analysis of the data as presented in this study, several conclusions were drawn:

1. The Manitoba Department of Education through its negotiations with the participating divisions has revised or expanded its thinking in terms of mobile facilities as a viable alternative in offering industrial arts and home economics programs.

2. A route has been established whereby requests for similar projects can be facilitated efficiently and quickly in terms of the involvement of the Building Projects committee and the Public Schools Finance Board of the Manitoba Department of Education.

3. The groundwork has been laid whereby the Department of Labour has been involved in terms of certifying mobile facilities for classroom use.

4. A turn-key industrial arts and home economics mobile building program could be accomplished within a period of three to four months from the date of Departmental approval for such facilities.

TABLE OF CONTENTS

CHAPTER Page

CHAPTER Page

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I

THE PURPOSE OF THE STUDY

INTRODUCTION

The problem of increasing educational demands has been with rural as well as urban jurisdictions for many years. The expansion of the breadth of school curricula at each grade level, the increase in material, equipment and personnel requirements brought about by new instructional techniques, specialization and the redefinition of services, have increased the demands for better utilization of resources.[1]

At the present time, educational planners in the rural areas are concerned with problems associated with declining enrolment. Some of these problems may include: sparse populations spread over a wide area resulting in heavy transportation costs per student, age ranges in classes becoming greater as several grade levels are amalgomated into single classrooms, teacher work-loads rising with increasing heterogeneity of classes, the uncontrolled lowering of pupil-teacher ratios, the provision of special programs becoming more and more difficult and costly, and

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[1]M.P.Scharf, A Report on the Rural Population and the Implications for the Future (Regina, The Saskatchewan School Trustees Association, 1974), p. 150.

the increasing difficulty in keeping some small schools open. Hastings, in a Study of the Feasibility of Technical Mobile Training Facilities, states that,

> One of the most serious economic and social problems which is engaging the minds of the rural planners has been expressed as the 'stay option.'[2]

The "stay option" is referred to in rural Manitoba, as a small communities' ability to operate a small local school using alternative methods of delivering an educational program to meet the needs of the students rather than amalgomating the small school with other schools to form a larger viable educational unit.

There has been some discussion among educators about the apparently inevitable shift in population from rural areas to urban centres. One study supported the concept that the scarcity of a more readily available technical training option in certain rural areas might well be one of the reasons for the migration to urban centres. It was stated that,

> While it is neither realistic nor desirable to underrate the importance of academic instruction, much less to over-emphasize the value of a technical background, there are opportunities within the technical fields not being fully investigated by students simply because they are unaware of their existence.[3]

In the densely populated urban centres a greater choice of technical options is provided with a higher degree

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[2]G.V.Hastings, A Study of the Feasibility of Technical Mobile Training Facilities (Beausejour, The East-Man Regional Development, Inc., 1973), p. 1.

[3]Ibid., p. 4.

of training than in some smaller school divisions. In the less densely populated rural areas where it is most needed, limited educational budgets associated with a declining enrolment cannot accommodate the costs of installing elaborate technical facilities.

This case study focussed on a project which was devised to provide industrial arts and home economics programs in a different manner from that normally used. It was designed particularly for a rural situation where declining enrolments have posed serious organizational and administrative problems and where traditional methods of program provision in these subjects seemed impractical.

I. STATEMENT OF THE PROBLEM

The purpose of this case study was to trace the development of a mobile industrial arts and home economics modules concept as proposed by the Pembina Valley School Division in cooperation with the Pilot Mound school in the Tiger Hills School Division. The events described in this case study commenced in 1971 when the problem of declining enrolment first became a concern to the Pembina Valley School Division and concluded at the point of final acceptance of the mobile concept by the Department of Education in February, 1976.

II. SIGNIFICANCE OF THE STUDY

The acceptance of any innovative or alternative

educational program requires the involvement of all groups concerned. If students, parents, teachers, administrators and board members are convinced that the concept is valid and applicable to the local situation, then the probability of acceptance by the Department of Education is enhanced. If the decision makers in the Department of Education are convinced that an innovative or alternative educational program has merit, then the probability of receiving sufficient funding is enhanced. The successful implementation of any new educational innovation requires meticulous planning with a view of an examination of all the alternatives. This meticulous planning is a time consuming process, however after a consensus has been reached by all participants in the decision, the outcome will have a greater chance of success.

The significance of this case study was therefore to provide educators in other jurisdictions with a description of a process by which, if applicable, alternatives in the area of industrial arts and home economics can be achieved. Perhaps this case study will aid other administrators in avoiding pitfalls similar to those met in this instance as they attempt to develop their alternatives to an industrial arts and home economics program in their region.

III. LIMITATIONS AND DELIMITATIONS

This is a case study of the development of a mobile industrial arts and home economics modules concept in a small

rural Manitoba school division from its initial conception to its approval by the Department of Education. This study did not involve itself with the steps involved in the implementation of the plan following this approval.

The author of this paper was directly involved in all phases of the development of the concept. Every effort has been made to approach the topic in a completely objective manner.

This case study was directly applicable to the region as outlined and there has been no intent in discussing the direct application of the findings to other jurisdictions.

Since mobile industrial arts and home economics facilities is a relatively new concept in Manitoba, the process by which the case study was developed was outlined specifically to represent the needs and aspirations of the students, parents, teachers, administrators and trustees in the region as well as to accommodate the position of the Department of Education in the Spring Term of 1976.

IV. METHODOLOGY

This case study in tracing the historical development of the project utilized information derived from a variety of sources. Letters and correspondence between the Pembina Valley School Division and the Department of Education were used to show the interaction between the participating groups. Official reaction and direction from the Pembina Valley School Division were put forward in the form of Board

minutes. Surveys of students, parents and teachers were tabulated to show not only their reaction to the cooperative school programming between the two school divisions in the past, but also to show their reaction to the proposed project. The reaction of the Department of Education was determined from verbal comments obtained from various members of the Department. The final approval by the Department was in the form of official correspondence.

To further substantiate the need for mobile industrial arts and home economics facilities to the Department of Education, other data such as student enrolment projections, a regional map showing distances involved, a sample timetable, a previous study on site location and present busing expenditures were gathered as background information and forwarded with the final proposal.

V. ORGANIZATION OF THE STUDY

The study is organized into seven chapters. Chapter one consists of the statement of the problem. Chapter two contains a review of the literature on the development of mobile educational facilities in the area of industrial arts and home economics. Chapter three is concerned with the historical development of the Pembina Valley-Pilot Mound area with specific emphasis on the school system and events leading up to the decision to request industrial arts and home economics facilities.

Chapter four discusses the initial proposals which

were submitted to the Manitoba Department of Education as well as the events leading up to the submission of a Notice of Intent. Chapter five is concerned with the substantiation of the Notice of Intent as submitted by the Pembina Valley School Division in cooperation with the Tiger Hills School Division. The decision of the Department of Education is outlined in Chapter six.

Chapter seven presents a summary of the study. It suggests conclusions derived from the content analysis and based on these conclusions, recommendations and suggestions for further study are proposed.

CHAPTER II

REVIEW OF RELATED LITERATURE

INTRODUCTION

Industrial arts education emerged on the educational scene in the late 1800's. Manual training or manual arts as it was later called, was introduced to the school system in response to the demands and interests of labour unions and industry.

Industrial arts has been defined in various terms. Bonser and Mossman in the discussion of Industrial Arts for Elementary Schools stated:

> The industrial arts are those occupations by which changes are made in the forms of materials to increase their values for human usage. As a subject for educative purposes, industrial arts is a study of the changes made by man in the forms of materials to increase their values, and of the problems of life related to these changes.[1]

According to the American Industrial Arts Association:

> Industrial arts is that phase of general education which offers individuals an insight into our industrial society through laboratory-classroom experiences.[2]

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[1]Frederick G. Bonser and Lois Coffey Mossman, Industrial Arts For Elementary Schools (N.Y.: The Macmillan Company, 1927), p. 5.

[2]Gordon O. Wilber and Norman C. Pendered, Industrial Arts in General Education (Scranton, Pennsylvania: International Textbook Company, 1967), p. 2.

Another professional organization defines industrial arts as:

> the study of our technology, including industrial tools, materials, processes, products, occupations, and related problems. It involves activities in shops, laboratories, drafting rooms, and elementary school classrooms.[3]

Wilber and Pendered in the discussion of Industrial Arts in General Education, tend to stress the place and function of industrial arts in public education and its relationship to general education. They define industrial arts as:

> those phases of general education that deal with industry-its organization, materials, occupations, processes, and products-and with the problems resulting from the industrial and technological nature of society.[4]

INDUSTRIAL ARTS IN THE EDUCATIONAL SYSTEM

Curriculum Organization and Objectives

Industrial arts in its early phases, was characterized by the development of the technical high school, junior high industrial arts programs, and of the exploratory function of industrial arts.[5] The early concept of the one-activity industrial arts shop gradually gave way to the general shop organization with a multiple-activity program.[6]

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[3]Ibid., p. 2. [4]Ibid., p. 2.

[5]Robert L. Woodward, Curriculum Handbook for School Administrators (Sacramento, California: California State Department of Education), p. 143.

[6]Leslie H. Cochran, Innovative Programs in Industrial Arts (Bloomington, Illinois: McKnight & McKnight Publishing Company, 1970), p. 6.

One of the early experiments involving industrial arts in the total educational program was the Speyer School Curriculum which was developed by the staff and supervisors of the Teachers College of Columbia University under the directorship of Frederick Bonser. In developing a course of study for the Speyer school, it was felt that social efficiency which is the aim of the school involves two basic principles of organization, namely:

1. The curriculum of the School should represent the needs and interests of present day life in our own immediate environment and the world at large--the social factor.

2. The work, at any given stage of the child's development should be that which is adapted to the immediate enrichment of his life as measured by his individual needs and capacities--the psychological factor.[7]

On the basis of the foregoing principles, every element in every subject of study is measured by its value in supplying a real need appreciated by the child and within the range of his capacity.[8]

From these early beginnings, industrial arts as a school subject has prospered in the educational system. Woodward, in discussing Industrial Arts Education, stated:

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[7] _____, The Speyer School Curriculum (New York, N.Y.: Teachers College, Columbia University, 1913), p. 1.

[8] Ibid., p. 2.

> as industry became more scientific and aesthetic in project design and manufacturing, industrial arts education modified its curriculum to include design, material selection, planning procedures, and the development of industrial products. The objectives have expanded to provide for a large variety of student needs, including those of students enrolled in the general education and pre-collegiate areas of the school.[9]

During the past two decades, many innovative programs in industrial arts have appeared on the educational scene. During the late 1950's at the University of Maryland, Donald Maley developed a method of organizing special classes in industrial education based upon research and experimentation. Later, Maley placed greater emphasis on the process of "how an individual arrives at his answers," and "the development of people," rather than on things.[10]

The Maine State Plan which was originally established in 1960 and later refined in 1963, culminated in an industrial arts program that more closely reflected industry and technology.[11]

An Industrial Arts Curriculum Project, involving teachers in selected public school systems in the United States, was held in 1967. An intensive teacher education program was developed whereby teachers became familiar with, developed, and field tested new teaching materials.[12]

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[9]Woodward, loc. cit., p. 81.

[10]Cochran, op. cit., p. 80. [11]Ibid., pp. 83-84.

[12]Leslie H. Cochran, Innovative Programs in Industrial Arts (Bloomington, Illinois: McKnight & McKnight Publishing Company, 1970), pp. 77-78.

The Parma (Ohio) Approach involved the Shiloh junior high school staff in designing an experimental industrial arts course that would provide junior high school students with an opportunity to explore, test, search and become familiar with the technological aspects of society.[13]

Henry R. Ziel, at the University of Alberta, Edmonton, inaugurated, in the fall of 1964, a curriculum for industrial arts teacher education to reflect the technologies prevalent in a productive society. Cochran describes the concept of the Alberta Plan as:

> predicated on the premise that no profession or occupation operates in a vacuum. The interrelationship of functions, processes, and technologies are evident in contemporary occupations and, therefore should be presented through industrial arts.[14]

The four objectives of the Alberta Plan as described by Cochrane are:

1. To provide an environment where students can reinforce and apply academic disciplines.
2. To provide exploratory experiences in the various productive aspects of society.
3. To provide a synthesizing educational environment.
4. To provide an introduction to the multiplicity of career opportunities.[15]

This concept is supported by Anderson in the discussion of an Activity Based Middle School Program. Anderson states that:

> Industrial arts must become an integral portion of the learning centre concept fostered in middle

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[13]Ibid., p. 86. [14]Ibid., p. 74.

[15]Ibid., p. 75.

> school planning. The use of activities, most logically, is to reduce or eliminate the extreme levels of abstraction forced upon youth in the conventional academic areas.[16]

Facilities

Anderson, in the discussion of the Trends in Laboratory Design in the Middle School, stated:

> Middle school facilities which have been constructed in the past few years have progressed from the "egg crate" design concept of the junior high school to the open area concept and, more recently to the development of independent learning clusters.[17]

Anderson also stated that the transition of industrial arts facilities from the "egg crate" design to the learning cluster concept has increased the flexibility in curriculum, promoted the interaction of all teachers and provided a total program which will better meet the needs of the middle school children.[18]

MOBILE INDUSTRIAL ARTS FACILITIES

The mobile approach in the delivering of industrial arts education is relatively new in the field of education. It has been introduced in widely separated locales in North America however there has been a variety of facility function,

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[16]Lowell D. Anderson, "The Activity Based Middle School," Man/Society/Technology, September/October, 1971, pp. 10-12.

[17]Lowell D. Anderson, "Trends in Laboratory Design for the Middle School," Man/Society/Technology, March, 1973, p. 239.

[18]Ibid., p. 17.

utilization and construction.

William F. George in the discussion of Rotational Mobile Laboratories, stated:

> Industrial arts being a unique, technically-orientated program of instruction, has for years been faced with numerous problems regarding the procurement and utilization of personnel and facilities. . . . The mobile approach would provide a flexible yet specialized method of maximizing these two significant comodities in any program, while offering a highly organized, diversified exploratory program of experiences for the student.[19]

In summarizing the approach, George states that:

> This program would be part of a comprehensive program in industrial education. Starting in the elementary grades with integrated material taught either by an industrial arts specialist or by the classroom teacher . . . in the seventh to ninth grade, the student would participate in an industrial arts exploratory and occupational guidance program . . . in the high school grades, industrial arts would be split into two sections, one for college bound students who need a technical, science-oriented course, and the other section for terminal students needing a vocationally-oriented program. Each of these programs would serve specific needs of students learning to live in a technical society.[20]

EARLY RECOGNITION

Mobile educational services within the past ten years have assumed a variety of forms, from portable classrooms to vans and school buses. The programs implemented through the

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[19]William F. George, "Rotational Team Teaching Using Mobile Laboratories," Man/Society/Technology, March, 1973, Vol. 32, No. 6., p. 247.

[20]Ibid., p. 251.

travelling units have also been varied, ranging from pre-school education to specialized vocational training. Individual schools, consolidated school districts, special cooperating groups of schools, state education departments, governmental agencies, universities and private industry have all initiated some mobile service to rural areas.

In 1966, under a Title III Planning Grant of the Elementary - Secondary Education Act in the United States, the San Lorenzo Unified School District in California studied the feasibility of rotating four prefabricated mobile industrial arts units among four junior high schools. The survey team was of the opinion at that time that transportable mobile units had merit for implementation. Accordingly, this plan was adopted by the Board; necessary pilot funding was procured, and the Transportable Industrial Arts Laboratories, funded under ESEA, Title III were constructed.[21] The main intent of this project was to augment the stationary laboratories which were located in each of the participating schools.

Similarly in New Milford Connecticut, a mobile auto repair shop was established under the U.S. Manpower, Development and Training Act. This mobile unit was also used to supplement vocational programs offered at the State's fifteen

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[21]George H. Schwalm, Transportable Industrial Arts Learning Laboratories (San Lorenzo, California: San Lorenzo Unified School District, 1969), p. 1.

vocational - technical schools.[22]

In 1968, the Profiles in Quality Education reported that a fully equipped mobile home serviced four junior high schools in the area of Florence, South Carolina and presented a true to life setting for training in home economics and home maintenance.[23] A joint venture of the New Mexico State Department and private industry was established in 1969 whereby a mobile electronics and electricity training program was instituted.[24]

LATER DEVELOPMENT OF MOBILE FACILITIES

The 1970's brought forth a refinement in mobile facilities. The Arkansas State Department of Education, a pioneer in the field of mobile services, assigned a fully equipped mobile machine shop unit to the Crowley's Ridge vocational and technical school in Forrest City. As the prototype for a fleet of wheeled laboratories soon to accommodate high school level of instruction in a diverse array of skill areas, the machine shop unit consisted essentially of a custom-designed trailer measuring sixty feet by twelve feet. Heavily framed and equipped with

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[22] G. Pearson, "Schoolrooms on the Go," American Education, March, 1969, Vol. 5, No. 3, p. 27.

[23] United States Department of Health, Education and Welfare, Profiles in Quality Education (Washington: Government Printing Office, 1968).

[24] _____ "Buses Take Technical Training to Students in Rural Areas," American Vocational Journal, May, 1969, Vol. 44, No. 5., p. 74.

four axles, the unit required only space and power at a site to be completely operable. The forward half of the unit was designed to accommodate twenty students and an instructor in a classroom equipped with desks, which converted to drafting tables, plus chairs, chalkboard, projector and storage facilities. The laboratory portion, located in the rear half, contained thirty-one machines including combination lathe-millers, vertical and horizontal milling machines and a numerically-controlled vertical milling machine. Due to the demand by the public school districts that Crowley's Ridge served, the mobile unit remained on the campus of each participating high school for a period of six weeks. In the evening, adult classes were scheduled for those interested in up grading their salable skills.[25]

Oklahoma State University, in 1970, instituted a travelling workshop which provided students from twelve colleges and universities access to the latest computer graphics training and technology.[26]

At the elementary level, the City of New York provided a program to enrich regular classes of eleven elementary schools from kindergarten to the sixth grade. A mobile trailer which was outfitted with sufficient tools, equipment

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[25]E. C. Burnett, "Mobile Classrooms Bring Vocational Education to Rural America," American School and University, December, 1972, Vol. 45, No. 4, pp. 42-43.

[26]G. R. McClain, "Oklahoma's Mobile Computer Graphics Laboratory," Engineering Graphics, April, 1974, p. 20.

and supplies to explore the areas of woodworking, metalworking, graphic arts, electricity-electronics, ceramics and plastics, visited each of five schools for one day a week during the period of one semester. The remaining schools were visited on a similar basis in the second semester. As explained by Herb Siegel, Director of Industrial Arts,:

> Hopefully there will be kids whose elementary industrial arts experience serve to acquaint them with the world of work around them; give them occupational orientation, information, pride in accomplishment and not the least important, hands-on experience and an appreciation of tools. This industrial arts experience will also provide the motivation needed for a simple learning of the basic three R's.[27]

In New Jersey, state and federal money for the disadvantaged provided an auto tuneup program for grade eight students. The primary purpose was to serve as an example to the various school districts of vocational programs that should become a permanent part of the school's curriculum.[28] Mel Hersh, a vocational instructor with the program explained that:

> it's not that we are trying to make auto mechanics or tuneup specialists out of these grade school students, we want to give them exposure to occupations. Some of the special students, young as they are, have quite a bit of mechanical ability and we try to develop these abilities.[29]

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[27] H. Siegel and H. Krane, "Curbside Shops for New York," Industrial Arts and Vocational Education, March, 1971, Vol. 60, No. 3, pp. 37-38.

[28] H. Smith, "Round-Robin Auto Tune-up Program," Industrial Arts and Vocational Education, May/June, 1971, Vol. 60, No. 5, p. 38.

[29] Ibid., p. 38.

Due to the success of the Crowley's Ridge project in 1970, the Arkansas Department of Education placed four more units in four very rural school districts in 1972. The units consisted of a second machine shop, an electronics shop, a building trades shop and an air conditioning and refrigeration shop. These units rotated once every eighteen weeks among the communities of West Fork and Prairie Grove in the Ozark mountains and Charleston and Paris in the Arkansas valley. Each of the school systems involved had fewer than fifteen hundred students in grades one through twelve.[30]

In other states, the mobile concept began to flourish. The State Department of Education in South Carolina solved a pressing need for expanded curriculum in graphic arts and in industrial sewing with mobile units. In Shelbyville Kentucky, two units were used to teach woodworking, welding and automotive repair skills. California expanded their career education courses in the remote areas of the country with mobile units to teach health occupations, distributive education, small engine repairs, auto mechanics, graphic communications and appliance repairs.[31]

The New Jersey Department of Education purchased twelve classrooms on wheels. Each unit was fully instrumented for instruction in automotive tuneup, automotive air conditioning, automotive brake repair, control of automotive exhaust and small engine repair. The units, measuring ten

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[30]Burnett, op. cit., p. 44. [31]Ibid., p. 44.

by sixty feet travelled an average of forty miles between schools approximately every six weeks.[32]

In 1973, project MODEL (Mobile Occupational Development Educational Laboratories), a mobile career development program designed to provide educational and occupational learning opportunities to specific population groups, was instituted by the Department of Education in the State of Massachusetts. The purpose of this project was to provide job entry skills for the disadvantaged in urban areas, in institutions for the mentally and physically handicapped and in correctional institutions.[33]

MANITOBA STUDIES OF MOBILE FACILITIES

The East-Man Regional Development Inc., in 1973, undertook a study of the feasibility of introducing Technical Mobile Training Facilities in rural Manitoba. The data accumulated and analyzed supported the concept that "the scarcity of a more readily available technical training option in certain rural areas might well be one reason for the migration to urban centres.[34] To overcome

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[32] Ibid., p. 43.

[33] E. R. Warzecha, Project MODEL (Mobile Occupational Development Education Laboratories) (Boston: Massachusetts State Department of Education, 1973), pp. 3-4.

[34] East-Man Regional Development, Inc., Techmobile-A Study of the Feasibility of Technical Mobile Training Facilities (Beausejour: East-Man Regional Development, Inc., 1973), p. 1.

this problem, the study concluded that technical training trailers would travel from one area to another and provide at least six technical training options to certain high schools which would otherwise have to make capital investments or would have to bus their students to the nearest composite training facility.[35] To date, the only known mobile facility is a "fifth wheel" semi-trailer unit which is designed for use in the area of business education.

AN EVALUATION OF VOCATIONAL PROGRAMS AND FACILITIES

The mobile unit concept has found widespread application in the first decade of its use, in terms of various programs employed and the regions of the country served. Schwalm, in discussing Transportable Industrial Arts Learning Laboratories in the San Lorenzo Unified School District in California, stated:

> The demonstration group showed significantly greater gains in tool usage, problem solving abilities, consumer knowledge, and general social behaviour as indicated by pre- and post-tests and instructors ratings. Teachers who received workshop sessions and guided practice in planning instructional sequences, were judged on demonstrated pre- and post-workshop assignments and were generally improved. The transportable laboratories were an unqualified success.[36]

The literature on the mobile vocational unit concept

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[35] Ibid., p. 8.

[36] George H. Schwalm, Transportable Industrial Arts Learning Laboratories (San Lorenzo, California: San Lorenzo Unified School District, 1969)

has been primarily descriptive, rather than evaluative. Since the mobile vocational unit concept is relatively new, there may be a time factor operating to explain the fact that so little experimental and statistical study has been made of the programs. However, the expansion of mobile vocational facilities during the past decade appears to give some credence to their effectiveness.

SUMMARY

The literature reviewed in this chapter focussed on Mobile Industrial-Vocational education facilities. Surveys have identified sixteen states in the United States which used the trailers for either industrial arts or vocational-industrial programs. The most popular uses were for career exploration and vocational programs for the disadvantaged and adults. Three types of trailers were found in use, One was the commercially available "house" type unit outfitted by firms which are in the business of providing mobile classrooms. Another approach was to purchase an old passenger or school bus and either build in the equipment for the program or contract a commercial firm to do the work. The third approach was the complete "do-it-yourself" approach. A vocational school constructed the trailer and installed all the equipment.

Services as provided by the mobile units appeared to be specific in nature and relatively short in duration. No evidence was observed as to a comprehensive industrial-

vocational education program in any school system using the mobile approach. An example of a comprehensive program might include industrial arts and home economics at the elementary level, pre-vocational options at the secondary level, vocational programs at the secondary level, occupational orientation for specific groups of students and adult education. Possibly this goes beyond what George had envisioned in the early 1970's.

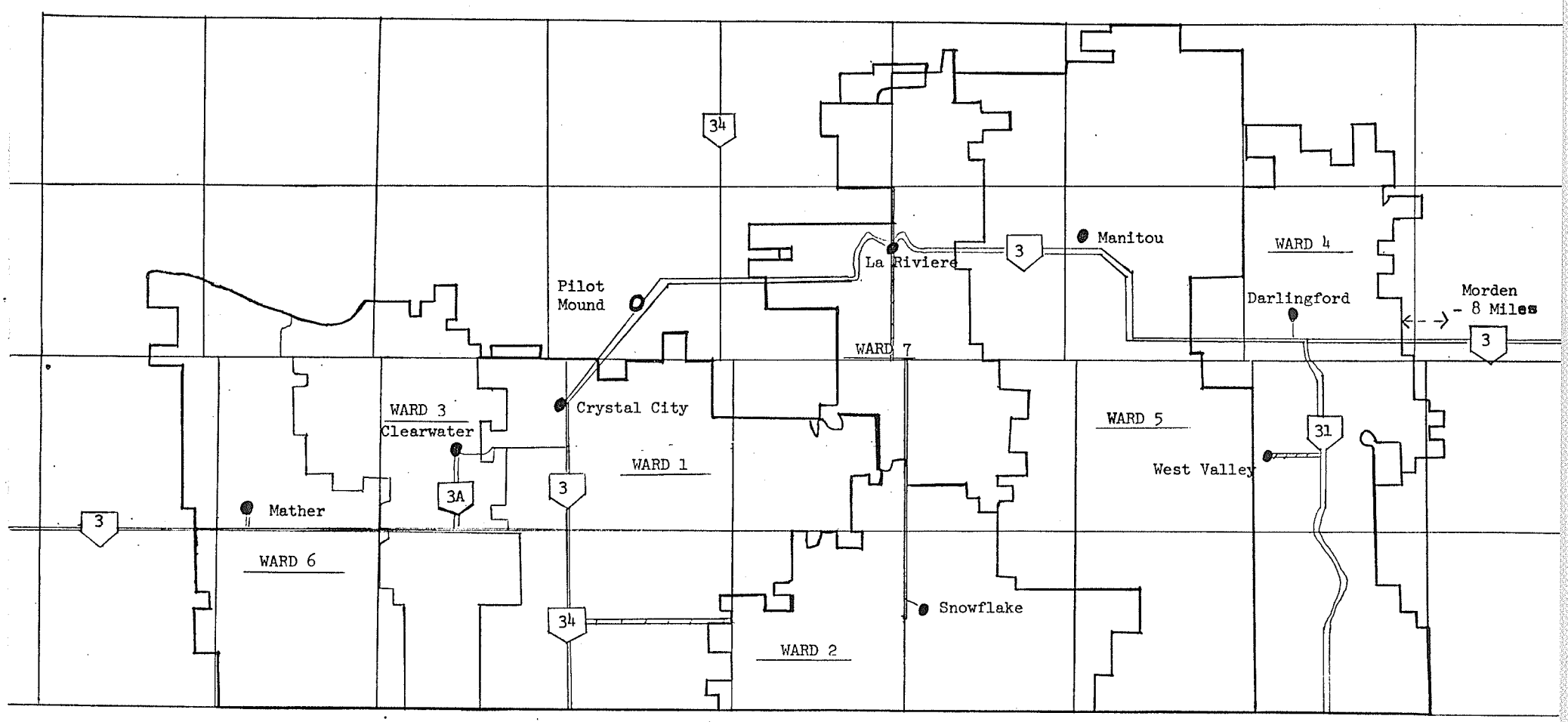
CHAPTER III

HISTORICAL DEVELOPMENT OF THE PEMBINA VALLEY-PILOT MOUND AREA

As presented in Illustration I, the Pembina Valley-Tiger Hills area is located primarily along Manitoba Provincial highway No. 3 and extends approximately 51 miles (Table I) from Darlingford in the east to Mather in the west. Snowflake and West Valley are located in the southern part of the area. The topography is generally rolling and the landscape is dotted with willow and poplar bluffs as well as with the occasional marsh. This is an agricultural area and is located in a zone that may be described as a transition between the intensive agriculture to the east and the extensive agriculture to the west. Crops of wheat, barley, oats, flax and some sunflower and silage corn are common to the area. Hog raising, beef cattle farming and dairying are also carried on. The economic activity of the area is primarily based on the agricultural service requirements. Small three and four room elementary schools are located in five of the smaller towns while a one room school is located on the West Valley Hutterite colony. Larger elementary and high schools are located in Manitou and Crystal City. Pilot Mound school, four miles east of Crystal City, is located in the Tiger Hills School Division

ILLUSTRATION I

THE PEMBINA VALLEY-PILOT MOUND AREA



to the north.

TABLE I

THE PEMBINA VALLEY-PILOT MOUND AREA

HIGHWAY DISTANCES

	Mather	Clearwater	Crystal City	Pilot Mound	Snowflake	LaRiviere	Manitou	Darlingford	West Valley
Mather		11	16	20	27	34	41	51	57
Clearwater	11		5	9	25	23	30	40	46
Crystal City	16	5		4	20	18	25	35	41
Pilot Mound	20	9	4		24	14	21	31	37
Snowflake	27	25	20	24		14	21	31	37
LaRiviere	34	23	18	14	14		7	17	23
Manitou	41	30	25	21	21	7		10	16
Darlingford	51	40	35	31	31	17	10		6
West Valley	57	46	41	37	37	23	16	6	

The School System

The birth of the Pembina Valley Unitary School Division No. 27 took place on May 7, 1971. This was not a popular event for some of the residents in the smaller towns and outlying areas. A fear of closing the many small consolidated schools and therefore a loss of identity was the

prevailing reaction. At that time, there was little concern regarding the potential loss of students due to declining enrolment and long range planning was non-existent.

After Unification in 1971, long range planning began in earnest. As presented in Table II, an enrolment forecast indicated a decline from approximately 1466 students in 1966 to an anticipated enrolment of 920 students in 1979. It was also noted from the Manitoba Department of Education statistics that the school enrolment in the Pembina Valley area decreased from a previous maximum of 2011 students in 1961. Since this was a relatively stable area in terms of population migration, a decline in the birth rate appeared to be the greatest single factor in the rapid decline in enrolment. Other reasons for the decline, although unsubstantiated, could include a change in the overall age of the community's residents, an increase in the drop-out rates and private school enrolment. Whatever the reason, it was felt that something had to be done to chart the development and direction of the Division over the next few years.

After a year of planning and consultation, a number of alternatives were presented to the Board of Trustees of the Pembina Valley School Division for their consideration. In late 1972, a decision was reached whereby a course of action was charted for the following five years. At that time, there was no consideration given to the introduction of either industrial arts or home economics.

TABLE II

PEMBINA VALLEY SCHOOL DIVISION NO. 27

	1966	1967	1968	1969	1970	1971	Enrolment Projections '72	'73	'74	'75	'76	'77	*1978	*1979	1980	1981	1982	1983	1984	1985	1986
Mather	65	71	86	88	85	84	72	62	57	50	43	33	30	20							
Clearwater	77	86	79	82	83	78	74	72	67	64	62	57	55	51							
Crystal City	207	200	188	191	187	185	174	152	138	128	122	113	98	89							
Snowflake	80	81	78	75	72	69	66	70	72	65	64	53	49	47							
LaRiviere	120	112	109	97	85	87	77	68	60	55	45	39	36	29							
Manitou El-Jr.(2)	323	355	334	314	303	298	275	268	251	235	228	217	216	218							
Darlingford	113	113	106	103	89	83	78	76	69	69	61	62	61	58							
West Valley	16	16	18	23	24	23	21	18	15	17	17	15	13	14							
Thomas Greenway Coll.	191	196	206	210	210	190	177	197	204	205	212	201	195	195	184	155	139	112	107	101	93
Nellie McClung Coll.	272	283	303	293	285	274	250	250	253	249	240	232	213	209	190	180	167	150	144	138	146
Total	1466	1513	1507	1476	1423	1395	1264	1233	1186	1137	1084	1022	966	920							

*Estimated enrolment for elementary schools

1. Kindergarten students are not included in enrolment.

2. Drop-out factor not included.

Shared occupational program. It was apparent as early as the fall of 1972 that the school system was not meeting the needs of all the students. Some students at the Grades 7, 8 and 9 levels were disenchanted with the regular programming and therefore attendance was very poor. Due to geographical distance and a lack of sufficient students, it was not possible for the Pembina Valley School Division to commence an occupational program for these students. The Pilot Mound school in the Tiger Hills School Division however was experiencing similar difficulties. On May 9, 1973, after considerable discussion, the Board of Trustees of the Pembina Valley School Division passed the following motion:

> that this Board approve in principle the proposed joint O.E.C. program between this division and the Tiger Hills School Division subject to further consultation and study by the Superintendent.

Shared academic services. Due to a declining enrolment at the secondary level, it was found to be increasingly difficult to offer the same variety of course options as in the past. At Thomas Greenway Collegiate in Crystal City, limited enrolment in some courses dictated that these courses would be deleted from the list of options in the near future. Also, due to a limited number of students, a business education program could not be offered. Because of these factors, enrolment increased to 44 students in correspondence courses. The Pilot Mound school was experiencing similar difficulties with their high school program.

At a meeting of the Board of Trustees of the Pembina

Valley School Division on December 19, 1973, it was suggested that concerned trustees meet informally with representatives from the Tiger Hills School Division to discuss inter-divisional cooperation. It was at this combined Board meeting that the subject of a cooperative industrial arts/home economics program was approached. It was felt that possibly by combining the student enrolment of the Pilot Mound school with the Pembina Valley enrolment, sufficient numbers of students would be realized to offer a basic industrial arts/home economics program. This subject was not pursued further, however on March 14, 1974, the following motion was passed by the Board of Trustees of the Pembina Valley School Division:

> that the Multi-Campus Business Education, O.E.C. Project as outlined, be accepted in principle.

The O.E.C. program would be taught in Pilot Mound and would be comprised of 17 students from the two divisions under the direction of one teacher. The shared academic program would include 12 shared academic courses and students from either Crystal City of Pilot Mound would be able to select a program from either school or a combination of both schools. A bus would transport the students between the schools at the end of each class.

Industrial arts and home economics. On September 11, 1974, the following motion was passed by the Board of Trustees of the Pembina Valley School Division:

> that the Superintendent make further inquiries into the possibility of delivering Vocational education to the students of this area.

Because of that directive, the Superintendent began a study entitled "Declining Enrolment and Educational Alternatives in a Small Rural Manitoba School Division". That study, using 1974 enrolment statistics, focussed primarily on permanent site locations for industrial arts and home economics facilities. It involved the grade structure of the participating schools, transported student miles to possible selected sites, and a brief discussion on transportation expenditures. The report of this study, as found in Appendix A, was presented to the Board of Trustees in February, 1975. Also, in February, 1975, a number of school principals and trustees visited several educational institutions in the states of Minnesota and Wisconsin. In a report to the Board, it was stated that the facilities visited were of the cooperative, multi-campus concept that encompassed the vocational as well as the academic areas of education. It was also reported that the student population, tax base, etc. of the areas visited were considerably larger than the local area and it would not be economically possible to offer comparable courses and facilities to the Pembina Valley and Pilot Mound students. However, due to the interest created by this visit as well as the Superintendent's report on Educational Alternatives on February 25, 1975, the decision was made to continue the study of alternative methods of delivering an industrial arts and home economics program to this area.

CHAPTER IV

THE PEMBINA VALLEY-TIGER HILLS AREA

A COMMITMENT

The period from December 19, 1973 to February 25, 1975, produced no formal discussion between the Pembina Valley and Tiger Hills School Divisions and the Department of Education in regards to the establishment of industrial arts and home economics facilities in the area. All interaction with the Department of Education was conducted by the Superintendent of Schools for the Pembina Valley School Division and was in the form of informal meetings. It was felt by the Board of Trustees of the Pembina Valley School Division that formal communication should begin at the earliest opportunity.

The following motion was passed on February 25, 1975:

> that the Board of Trustees of the Pembina Valley School Division No. 27 respectfully requests the Department of Education to examine the feasibility of establishing Industrial Arts and Home Economics facilities in this region and also that support is solicited from the Tiger Hills School Division No. 29 in our request for the aforementioned facilities.

A letter was forwarded to the Department of Education on March 5, 1975, indicating the request. A copy is presented in Appendix B. A reply which was received on March 11, 1975 is presented in Appendix C.

A meeting was held on March 27, 1975, with representatives from the Pembina Valley School Division, the Tiger Hills School Division and the Department of Education Projects Review Committee in attendance. Discussion focussed on the feasibility of obtaining industrial arts and home economics facilities in the area. The Projects Review Committee reported that the general feeling of the Department of Education was that industrial arts and home economics facilities should be established in the area. Mobile trailer facilities were considered, and it appeared at that time that they would be more economical and adaptable to the requirements of the area than would permanent facilities. A report from the Department of Education Projects Review committee is presented in Appendix D.

Further discussion continued, and it became more apparent that mobile industrial arts and home economics facilities would best serve the needs of the students rather than permanent facilities.

Representatives from the Pembina Valley School Division and the Tiger Hills School Division visited rural school divisions in Arkansas on April 15, 1975 where mobile vocational facilities were in operation. Particular attention was given to the construction of the mobile modules and programs of study in terms of their adaptability to meet the particular needs of the local area in Manitoba. It appeared that the concept as presented in Arkansas had merit and further

study in relationship to the local needs should continue.

The Board of Trustees of the Pembina Valley School Division, at a special meeting on May 20, 1975, passed the following motion:

> that we proceed with the accumulation of required information for the filing of a "Notice of Intent" to the Department of Education for the purchase of four (4) mobile educational modules.

A public meeting was held in the Pilot Mound school on May 26, 1975 to discuss the issue of industrial arts and home economics. There were some concerns expressed as to the impact of this new program on the existing secondary school program in Crystal City and Pilot Mound. It was felt that there may be further deterioration of the low enrolment courses at the Grades ten to twelve level. Also, there was discussion regarding the impact of a home economics program on the 4-H program in the community. It was generally felt however that the introduction of industrial arts and home economics was worthy of merit and that the divisions concerned should proceed with the project.

A joint meeting of the entire Boards of the Pembina Valley School Division and the Tiger Hills School Division was held in the Pilot Mound school on June 17, 1975. At that time, the programs of studies under discussion included graphic communications, energy and power, electricity and electronics, child care and allied health services and carpentry construction. Indications from informal discussions with the Vocational Branch of the Department of Education

were that the Provincial programs in graphic communications and electricity and electronics could be handled quite adequately in the mobile modules. Also, in home economics, programs on food and nutrition, clothing and textiles and relationships could be offered in a single module with little difficulty. A program in energy and power would have to be modified and restricted. It was decided to delete carpentry construction due to the lack of sufficient area.

The trustees of the Pembina Valley and Tiger Hills School Divisions discussed the hiring of a coordinator to guide the project through the initial stages of planning and implementation. It was finally agreed that a Planning Coordinator should be hired and that a letter be sent to the Department of Education requesting the necessary funding. It was also noted that in previous discussions with the Superintendent of Schools of the Pembina Valley School Division, the Deputy Minister of Education had verbally approved of a position for a Planning Coordinator.

The Pembina Valley School Division forwarded a letter to the Vocational Branch of the Department of Education on June 23, 1975, requesting approval to engage a Planning Coordinator. A copy of this letter is presented in Appendix E.

The Board of Trustees of the Pembina Valley School Division ratified the decision to engage a Planning Coordinator on June 25, 1975, by passing the following motion:

> that an application be forwarded to the Department of Education requesting a grant for a Planning Coordinator for Home Economics/Industrial Arts

> facilities and program and this Planning Coordinator would be employed in this capacity for a period of one year.

A further motion was passed on August 27, 1975 stating:

> that the Pembina Valley School Division No. 27 with the support of the Tiger Hills School Division No. 29 hereby requests the establishment of Industrial Arts/Home Economics facilities in the Manitou, Pilot Mound, Crystal City area; and also that the Industrial Arts/Home Economics facilities be comprised of four (4) mobile educational modules.

A Notice of Intent was subsequently forwarded on August 28, 1975, to the Building Projects Committee of the Department of Education for their consideration. A copy of this letter is presented in Appendix F. It was stated at that time that full substantiation, documentation and background information would be forthcoming from the school divisions concerned in the near future. Meanwhile, the Vocational Branch of the Department of Education with the cooperation of the Pembina Valley School Division, prepared a submission to HESP (Health, Education and Social Policy) sub-committee of Cabinet in support of the request for a Planning Coordinator. This submission is presented in Appendix G.

CHAPTER V

SUBSTANTIATION OF NOTICE OF INTENT

It was apparent from the outset that mobile industrial arts and home economics facilities was a new and innovative concept in Manitoba. Justification for such a request would require student enrolment projections, substantiation that a shared services program would in all likelihood be feasible, and assurance that the request for mobile facilities was the correct decision. The overall deciding factor would require input from students, teachers, administrators, trustees and ratepayers of the area.

Student Enrolment

In order to obtain relatively reliable statistics on projected enrolments, a questionnaire was circulated to all students attending the schools in the Pembina Valley School Division and the Pilot Mound school. (Appendix H.) The students were instructed to have their parents complete the questionnaire and return it to the school by October 2, 1975. As a follow-up, residents who were very familiar with the area were consulted as to those parents who may not have received the questionnaire. The results of this survey are presented in Table III.

These pre-school statistics were then tabulated to indicate student enrolment projections by school and grade

TABLE III

PRE SCHOOL ENROLMENT

SEPTEMBER 1975

CHILDREN BORN IN 1971-1975

YEAR	MATHER	CLEARWATER	CRYSTAL CITY	SNOWFLAKE
1971	2	6	18	4
1972	3	5	8	3
1973	2	3	11	5
1974	5	4	8	5
1975	2	2	6	-

YEAR	LA RIVIERE	MANITOU	DARLINGFORD	*PILOT MOUND
1971	3	34	13	25
1972	6	20	3	28
1973	5	26	3	16
1974	13	20	3	14
1975	4	18	5	-

* as of January, 1975

as presented in Table IV. Statistics were also compiled from the existing enrolment in the schools as to the projected enrolment in Grades 7 - 12 for the years 1976-1979. These are shown in Table V. It appeared from this study that there was a sufficient combined student enrolment at the Grades 7 - 12 level to proceed with the establishment of an industrial arts and home economics program. Pre-school

TABLE IV

STUDENT ENROLMENT PROJECTIONS

BY SCHOOL AND GRADE

		Ktgn.	I	II	III	IV	V	VI	VII	VIII	TOTAL	OEC	IX	X	XI	XII	SUB-TOTAL	DROP-OUT %AGE	TOTAL
MATHER ELEMENTARY	Enrolment Sept.1975		2	8	5	0	11	5	6	9	46						46		46
	1976-77		1	2	8	5	0	11	5	6	38						38		38
	1977-78		2	1	2	8	5	0	11	5	34						34		34
	1978-79		3	2	1	2	8	5	0	11	32						32		32
	1979-80		2	3	2	1	2	8	5	0	23						23		23
CLEARWATER ELEMENTARY	Enrolment Sept.1975	21	6	9	6	9	7	9	9	7	83						83		83
	1976-77	26	4	6	9	6	9	7	9	9	85						85		85
	1977-78	16	6	4	6	9	6	9	7	9	72						72		72
	1978-79	16	5	6	4	6	9	6	9	7	68						68		68
	1979-80	17	3	5	6	4	6	9	6	9	65						65		65
CRYSTAL CITY ELEMENTARY	Enrolment Sept.1975		6	11	11	14	25	25	20	12	124						124		124
	1976-77		16	6	11	11	14	25	25	20	128						128		128
	1977-78		18	16	6	11	11	14	25	25	126						126		126
	1978-79		8	18	16	6	11	11	14	25	109						109		109
	1979-80		11	8	18	16	6	11	11	14	95						95		95

TABLE IV (Continued)

	Ktgn.	I	II	III	IV	V	VI	VII	VIII	TOTAL	OEC	IX	X	XI	XII	SUB-TOTAL	DROP-OUT %AGE	TOTAL
SNOWFLAKE ELEMENTARY	Enrolment																	
	Sept.1975		7	9	7	6	6	10	12	5	62						62		62
	1976-77		5	7	9	7	6	6	10	12	62						62		62
	1977-78		4	5	7	9	7	6	6	10	54						54		54
	1978-79		3	4	5	7	9	7	6	6	47						47		47
	1979-80		5	3	4	5	7	9	7	6	46						46		46
LA RIVIERE ELEMENTARY	Enrolment																	
	Sept.1975		3	8	2	7	6	9	10	11	56						56		56
	1976-77		7	3	8	2	7	6	9	10	52						52		52
	1977-78		3	7	3	8	2	7	6	9	45						45		45
	1978-79		6	3	7	3	8	2	7	6	42						42		42
	1979-80		6	6	3	7	3	8	2	7	42						42		42
MANITOU ELEMENTARY	Enrolment																	
	Sept.1975	41	32	27	32	26					158						158		158
	1976-77	50	28	32	27	32					169						169		169
	1977-78	29	36	28	32	27					152						152		152
	1978-79	36	20	36	28	32					152						152		152
	1979-80	37	26	20	36	28					147						147		147

TABLE IV (Continued)

	Ktgn.	I	II	III	IV	V	VI	VII	VIII	TOTAL	OEC	IX	X	XI	XII	SUB-TOTAL	DROP-OUT %AGE	TOTAL
MANITOU JR. HIGH	Enrolment																	
	Sept.1975					35	23	35	34	127						127		127
	1976-77					26	35	23	35	119						119		119
	1977-78					32	26	35	23	116						116		116
	1978-79					27	32	26	35	120						120		120
	1979-80					32	27	32	26	117						117		117
DARLINGFORD ELEMENTARY	Enrolment																	
	Sept.1975		9	8	7	10	9	11	8	12	74						74	
	1976-77	6	8	9	8	7	10	9	11	8	70						70	
	1977-78		13	8	9	8	7	10	9	11	75						75	
	1978-79		3	13	8	9	8	7	10	9	67						67	
	1979-80		4	3	13	8	9	8	7	10	62						62	
WEST VALLEY ELEMENTARY	Enrolment																	
	Sept.1975	5	3	2	2	2	2	2	4		22						22	
	1976-77	1	5	3	2	2	2	2	2		19						19	
	1977-78	1	1	5	3	2	2	2	2		18						18	
	1978-79	1	1	1	5	3	2	2	2		17						17	
	1979-80	0	1	1	1	5	3	2	2		15						15	

TABLE IV (Continued)

		Ktgn.	I	II	III	IV	V	VI	VII	VIII	TOTAL	OEC	IX	X	XI	XII	SUB-TOTAL	DROP-OUT %AGE	DROP-OUT TOTAL
NELLIE McCLUNG COLLEGIATE (MANITOU)	Enrolment Sept.1975												53	49	51	47	200	6.28%	200
	1976-77												57	53	49	51	210	13	197
	1977-78												53	57	53	49	212	13	199
	1978-79												43	53	57	53	206	13	193
	1979-80												50	43	53	57	203	13	190
T.GREENWAY COLLEGIATE (CRYSTAL CITY)	Enrolment Sept.1975												42	50	39	25	156		156
	1976-77												33	42	50	39	164	10	154
	1977-78												47	33	42	50	172	11	161
	1978-79												49	47	33	42	171	11	160
	1979-80												49	49	47	33	178	11	167
PILOT MOUND	Enrolment Sept.1975	26	29	30	16	30	32	26	32	30	270	←19 18→	37	35	21	12	105	11.94%	105
	1976-77	25	26	29	30	16	30	32	26	32	246	*	33	28	26	21	107	(13)	94
	1977-78	28	25	26	29	30	16	30	32	26	242	*	33	33	28	26	119	(14)	105
	1978-79	16	28	25	26	29	30	16	30	32	232	*	29	33	33	28	123	(15)	108
	1979-80	14	16	28	25	26	29	30	16	30	214	*	33	29	33	33	128	(15)	113

* OEC not computed.

TABLE V

STUDENT ENROLMENT PROJECTIONS

Grades 7 - 12

		GRADES 7	8	9	TOTAL	GRADES 10	11	12	TOTAL
MANITOU AREA	1976-77	43	53	57	153	53	49	51	153
	1977-78	50	43	53	146	57	53	49	159
	1978-79	43	50	43	136	53	57	53	163
CRYSTAL CITY AREA	1976-77	49	47	33	129	42	50	39	131
	1977-78	49	49	47	145	33	42	50	125
	1978-79	29	49	49	127	47	33	42	122
PILOT MOUND AREA	1976-77	26	32	33	91	28	26	21	75
	1977-78	32	26	33	91	33	28	26	87
	1978-79	30	32	29	91	33	33	28	94
TOTAL ENROLMENT 7-9 10-12	1976-77	118	132	123	373	123	125	111	359
	1977-78	131	118	133	382	123	123	125	371
	1978-79	102	131	121	354	133	123	123	379

statistics indicated that even though the enrolment pattern continued on a downward trend, there appeared to be sufficient justification for a continued industrial arts and home economics program in the years ahead.

Shared Services

Academic program. A shared academic program between Thomas Greenway Collegiate and the Pilot Mound School began

in September, 1974, and involved 40 students from the Pembina Valley School Division and the Tiger Hills School Division sharing 12 secondary subjects. In September, 1975, the program had expanded to a total of 165 students from both divisions sharing 24 secondary subjects. (Table VI.) The increase in the number of students involved in the secondary shared services program indicated student and community acceptance of the shared services concept. This was particularly valid in view of the fact that there was no reduction in courses at either collegiate. A summary of parental response (Table VII) indicated that 40 parents supported the program, 12 parents did not support the program and five parents were uncertain. Teachers at both Thomas Greenway Collegiate and Pilot Mound School spoke out almost unanimously in favour of continuing the secondary shared services program. A further indication of the impact of the shared services program was seen in the fact that the number of students taking correspondence courses declined from 44 in 1974 to 16 in 1975. It was noted that eight of the 16 students studied power mechanics and three, home economics.

Occupational program. One of the most important aspects of the shared services was the occupational program. Its growth from one teacher and 17 students in 1974 to the involvement of five teachers and 37 students in 1975 has indicated its general acceptance. Native student enrolment increased from two students in 1974 to 11 students in 1975.

TABLE VI

DEVELOPMENT OF SHARED ACADEMIC SERVICES

AT THE SECONDARY LEVEL

1974/75		1975/76	
Shared Courses		Shared Courses	
Chemistry	200	Chemistry	200
Chemistry	300	Chemistry	300
Intro. Bus.	9	Intro. Bus.	9
French	100	French	100
French	200	French	200
French	300	French	300
Credit Phys. Ed.		Credit Phys. Ed.	
History	301	History	301
Bus. Pr.	201	Bus. Pr.	201
Biology	300	Biology	300
Bus. Machines	202	Physics	200
Physics	200	Physics	300
		Mathematics	101
		Mathematics	200
		Mathematics	301
		Business Law	301
		American History	100
		Science	101
		Typing	302
		English	201
		English	200
		English	301
		Geography	201
		Geography	301

TABLE VII

A SUMMARY OF PARENTAL RESPONSE TO SHARED ACADEMIC SERVICES AT THE SECONDARY LEVEL

Parent Questionnaire:

Please check the appropriate response to the following questions and return to the collegiate before Friday, October 17.

40 respondents. Yes, I support the Shared Service Program currently being operated between Thomas Greenway Collegiate and Pilot Mound High School and I feel that this program should be continued in the future.

12 respondents. No, I do not support the Shared Services Program that is currently being operated between Thomas Greenway Collegiate and Pilot Mound High School.

5 respondents. Uncertain.

A sample of some of the comments received are included here.

1. "I don't know financial arrangements involved but expect the situation has evolved to give the students the opportunity of a wider choice of studies at the least expense. As different students have different abilities the wider the choice of courses the more satisfied and fulfilled student, thus I support 'Shared Service.'"

2. "It gives them a greater selection of subjects."

3. "Each trip from one school to the other requires at least 15 minutes each way by the time they assemble their books, get coats etc. make the bus trip and get settled in their next class."

It was felt that this program was responsible for maintaining at least some of these native students in the school system. A letter from the Swan Lake Band as shown in Appendix I, substantiated this success. A summary of the response by the parents of 18 O.E.C. students indicated an overwhelming acceptance of the program (Table VIII). All teachers involved in the program were very enthusiastic and positive in their reaction.

On the basis of past evidence of cooperation involving a shared services program, it was felt that similar cooperation would be extended to other programs in the future.

TABLE VIII

A SUMMARY OF PARENTAL RESPONSE TO SHARED OCCUPATIONAL SERVICES

Question	Positive Response	Negative Response
Are you generally satisfied that the O.E.C. program is appropriate for your son/daughter?	17	1
Work placement satisfactory?	17	N/A
Location satisfactory?	17	N/A

Industrial Arts/Home Economics

Parental interest. In October, 1975, a questionnaire was circulated to 193 parents of Grades seven and eight students in the Pembina Valley and Pilot Mound area. This questionnaire, as presented in Appendix J, asked parents as to whether or not

they supported the efforts to add instruction in industrial arts and home economics to the Jr. High School educational program. The reply as indicated in Table IX showed an overwhelming positive response to the concept.

Teacher interest. Replying to a similar questionnaire as sent to the parents, an overwhelming positive response, as indicated in Table X, was received from all the Grade seven and eight teachers in the area.

Student interest. A Student Interest Questionnaire (Appendix K) was designed using Manitoba Curriculum Guides as a basis for originating questions in each of the following four areas.

1. Graphic Communications
2. Energy and Power
3. Electricity/Electronics
4. Home Economics

Five questions, relating to each of the four above mentioned areas, were originated and the twenty question instrument was then administered to all grade seven and eight students in the area who were in attendance on the day the survey was taken at their school. The questionnaire was introduced by a statement such as the following . . . "We are thinking about adding some activities to your school curriculum that are probably more related to industrial trades and family living than the activities you now participate in in school, and we would like to find out something about your

TABLE IX

PARENTAL RESPONSE TO THE INTRODUCTION OF INDUSTRIAL ARTS AND HOME ECONOMICS TO THE SCHOOL PROGRAM

	Total Response - Grade 7 and 8 parents		
COMMUNITY	YES	NO	More Info, or Don't Care
MANITOU	48	2	1
CRYSTAL CITY	18	2	
SNOWFLAKE	13	3	
PILOT MOUND	47	4	
MATHER	11	1	
CLEARWATER	12	1	
DARLINGFORD	12	1	2
LA RIVIERE	15	0	
TOTAL	176	14	3

TABLE X

TEACHER RESPONSE TO THE INTRODUCTION OF INDUSTRIAL ARTS AND HOME ECONOMICS TO THE SCHOOL PROGRAM

SCHOOL	Total Response - Grade 7 and 8 teachers	
	YES	NO
SNOWFLAKE	3	
MANITOU JR. HIGH (Teachers Grades 5-8)	6	
CLEARWATER	3	
CRYSTAL CITY	7	
LA RIVIERE	3	
MATHER	3	
PILOT MOUND (Teachers Grades 7 & 8)	2	
O.E.C.	3	
DARLINGFORD	4	
TOTAL	34	

NOTE: All 34 Questionnaires distributed were returned and all were positive.

interests. Therefore, I would like you to complete the questionnaire at this time." An explanation concerning rating items on a five point scale followed the introduction of the questionnaire. (No mention was made of mobile units or of industrial arts and home economics as curriculum units). The five point scale was decided upon in an effort to obtain relative levels of interest as it was felt that a simple

yes/no technique would give relatively little information as almost all students would reply positively when questioned about adding something new and different to their school day. The varying levels of interest on the five point scale were described to the students in the following manner.

1. Rating 1 - You would hate to do an activity such as this.

2. Rating 2 - You would dislike participating in such an activity.

3. Rating 3 - An activity such as this would be fairly enjoyable.

4. Rating 4 - It would be a good idea to participate in such activities.

5. Rating 5 - It would be a very good idea to participate in such activities.

On the basis of the information received from the completed student rating scales, two sets of four frequency distribution tables were then constructed. One set of tables for the 118 males and another set of tables for the 121 females in the sample. (The four tables in each set refer to the four areas in the survey i.e. Graphic Communications, Energy and Power, Electricity/Electronics and Home Economics). An effort was then made to determine which measure of central tendency would best describe the student ratings and it was decided that the relatively small sample size would show less distortion if the median was chosen.

A comparison between levels of interest of males and females in the four areas of the survey is presented in Table XI.

TABLE XI

STUDENT RESPONSE TO THE INTEREST INVENTORY REGARDING THE INTRODUCTION OF INDUSTRIAL ARTS AND HOME ECONOMICS

Pembina Valley School Division

SUBJECT AREA	AVERAGE RATING ON A 5 POINT SCALE	
	MALES	FEMALES
	(93 Students)	(87 Students)
GRAPHICS	3.05	3.69
ENERGY AND POWER	3.67	2.43
ELECTRICAL/ELECTRONICS	3.92	3.33
HOME ECONOMICS	2.57	4.00

Pilot Mound School

SUBJECT AREA	AVERAGE RATING ON A 5 POINT SCALE	
	MALES	FEMALES
	(25 Students)	(34 Students)
GRAPHICS	2.62	3.33
ENERGY AND POWER	2.80	1.32
ELECTRICAL/ELECTRONICS	3.34	2.01
HOME ECONOMICS	1.63	2.76

It appeared from the results of the Student Interest Questionnaire that all the programs listed in industrial arts and home economics created some interest with the male and female students. Females displayed a greater interest in graphic communications and home economics than the males while the males displayed a greater interest than the females in electricity/electronics and energy and power. Regardless of the levels of interest, all students expressed a genuine interest in an industrial arts and home economics program.

MOBILE INDUSTRIAL ARTS AND HOME ECONOMICS FACILITIES

The use of mobile facilities is one approach that overcomes a number of the problems associated with hard site construction. This approach involves moving the facility to the student rather than moving the student to the facility.

In a typical mobile delivery system of mobile units, each is equipped and staffed to deliver a specific curriculum, and moves in a "round robin" or cycle from school to school. (Table XII.) During any given time students at each school are exposed to all the learning experiences offered through the mobile units. (Table XIII.) A typical unit consists of a custom built trailer approximately 60' x 14'. This unit is towed from school to school by a rented tractor unit. Most trailers can accommodate eighteen to twenty students at one time and are fully equipped with tools, materials and

TABLE XII

MODULE ROTATION PLAN

Sample Timetable

		Crystal City	Pilot Mound		Manitou
Year	Semester	Jr.High	*O.E.C.	Jr.High	Jr.High
1	1	Graphics	Energy and Power	Home Ec.	Electrical/ Electronics
	2	Energy and Power	Electrical/ Electronics	Graphics	Home Ec.
2	1	Home Ec.	Graphics	Electrical/ Electronics	Energy and Power
	2	Electrical/ Electronics	Home Ec.	Energy and Power	Graphics
3	1	Graphics	Energy and Power	Home Ec.	Electrical/ Electronics
	2	Energy and Power	Electrical/ Electronics	Graphics	Home Ec.

* The Occupational Education program was designed and is presently being operated jointly by the Tiger Hills School Division and the Pembina Valley School Division--program presently located at Pilot Mound.

TABLE XIII

TIME ALLOTMENTS JR. HIGH

Industrial Arts/Home Economics

Basic Program

- class size 15
- 9 classes (3 classes of each of Grades 7, 8, and 9)
- class length 70 minutes (actual class time)

	DAY					
Period	1	2	3	4	5	6
1	7	9	8	7	9	8
2	8	7	9	8	7	9
3	9	8	7	9	8	7
4	Prep.	High School	Prep.	Prep.	High School	Prep.

ADDITIONAL POSSIBILITIES

1) Include one extra period per cycle for each of the 9 classes mentioned above.

Example:

1st cycle	Gr. 7	35 min. x 3 groups
2nd cycle	Gr. 8	35 min. x 3 groups
3rd cycle	Gr. 9	35 min. x 3 groups

2) Make more time available for high school options. (Similar amount of time to suggestion above).

Teacher Prep. Time

Even after allowing for one of the additional possibilities listed above the teacher would still have 3 1/2 hours of prep. time per cycle.

instructional equipment.

The primary use of these facilities is to deliver programming at the Junior High School level. The secondary functions are to provide optional pre-vocational programming for high school students and the establishment of facilities and programming to expand the occupational experiences for the O.E.C. students. The possibility of delivering vocational and avocational programs for adults has not been overlooked in selecting the units.

Unit No. 1, Graphics

The purpose of this program is to provide the student with exercises and experiences relative to communication with technical graphic materials, to develop an appreciation for and concept of technical graphic communication in our society, and to provide an insight into how industry works in this important area of visual communication. It is also designed to acquaint the students with broad concepts and generalizations relating to the printing industry.

Unit No. 2, Energy and Power

The overall objectives are:

1. To have students develop an awareness of the many forms of power available to mankind.

2. To have students become aware of the scope of the Power Industry.

3. To have students realize the importance that power has for mankind.

4. To have the students familiarize themselves with the total process of energy conversion.

5. To have the students develop an understanding of the three methods of power transmission: mechanical, fluid and electrical.

6. To have the students gain knowledge of how the various methods of power are utilized in systems.

7. To have the students develop competence with related tools and equipment used in power technology fields.

Unit No. 3, Home Economics

This unit is designed to deliver the program as described in the provincial curriculum guide for Junior High School home economics. It shall also provide equipment adaptable for home economics 101, 201, and 301 at the Senior High School level.

Unit No. 4, Electricity/Electronics

This unit will give students the opportunity to learn the theory and skills related to the electrical/electronics industry. They will hopefully learn to identify and use the basic tools of the trade and perform tasks related to the installation, servicing and repair of electrical products. Student activities may range from experimental work to installing and repairing equipment.

Rationale

There is general agreement in North America that industrial arts and home economics programs should be a

part of the school experience for every student. Most Manitoba divisions offer these programs at the Junior High School level with optional programming in the Senior High School. The students of the Pembina Valley School Division and the Pilot Mound school have not had access to these programs however they have had positive experiences with service delivered through mobile facilities in the form of the Mobile Reading Laboratory which is operated by the Department of Education.

The concerned school boards have examined the pros and cons of various delivery systems. The mobile approach seems to meet the unique problems within these divisions and appears to be a viable alternative to hard site construction.

The following are the major positive aspects of this opinion:

1. The elimination of the need to bus some students to permanent facilities.

2. The elimination of community rivalry over hard site location.

3. The encouragement of sharing between communities.

4. A reduced capital investment when compared with hard site construction.

5. The capacity of retrieving and re-assigning a mobile unit if the unit becomes redundant.

In summary, the mobile delivery approach appears to offer the best opportunity to fulfill the promise of the

"stay option" and of meeting the ideal of small, community related schools responsive to a local identity.

On November 6, 1975, exactly ten weeks after the Notice of Intent was forwarded to the Department of Education, the substantiation and rational for the request for Mobile industrial arts and home economics facilities were presented to the Secretary of the Building and Projects committee by the Superintendents of the Pembina Valley and Tiger Hills School Divisions. The only remaining question at that time was to what extent the Department of Education was going to procrastinate before reaching a decision.

CHAPTER VI

DECISION

It was apparent from the beginning that due to the unique concept in delivering vocational programs as proposed by the Pembina Valley and Tiger Hills School Divisions, the Vocational Branch of the Department of Education would have to be involved from the outset. Old concepts regarding minimum classroom size, funding procedures and new methods in delivering adequate basic programs would all have to be reconsidered in terms of mobile facilities. For over a year, there was continuous dialogue on these and other subjects between the participating divisions and the Department of Education. Finally, in September, 1975, the Vocational Branch of the Department of Education, gave its approval in principle of the mobile concept and its practicability in delivering a meaningful industrial arts and home economics program to students in rural and northern areas.

Submission No. 1 - Concept and Coordinator

On October 17, 1975, the Deputy Minister of Education approved the project and also recommended to the Minister of Education that funds for a Coordinator be approved. It was felt that since the Pembina Valley School Division and the Pilot Mound School of the Tiger Hills School Division did

not have any vocational facilities and the Divisions were too distant from the Regional Vocational Centres, their request was justified. Also, permanent facilities would not be feasible if the student population continued to decline as well as the possibility of site location becoming a political question. In November, 1975, the Minister of Education approved the recommendation of the Deputy Minister and therefore submitted the proposal (on the basis of funding for a Coordinator) to HESP. After some delay, the project was approved in principle.

It was at that time that Departmental budgets were being presented for the coming year. Due to an austerity program, many departments in the Education branch had their budgets drastically reduced. The budget for the Vocational Branch along with the proposed funding for a project Coordinator survived virtually intact. It was felt that during the meetings between senior governmental officials that the concept of Mobile industrial arts and home economics facilities became a viable alternative to some of the problems in rural and northern areas of the province.

Submission No. 2 - Mobile Industrial Arts and Home Economics Modules

It was noted that the proposal for mobile facilities was approved by the Building and Projects committee of the Department of Education in November, 1975. This is presented in Appendix L. It was not until January 16, 1976, that written confirmation was received from the Public Schools

Finance Board of the Department of Education through the Office of the Deputy Minister. The question at that time was to the amount of funding which would be allocated to the project. Under normal circumstances, a cost per square foot would be allocated to a permanent structure by the Public Schools Finance Board. On this occasion, the actual cost of the mobile facilities were unknown. However on February 3, 1976, the Minister of Education approved the project and allocated the amount of $252,829.00. This is presented in Appendix M.

The acceptance of any new concept in Education is difficult, particularly if a great many people are involved. Department of Education personnel must be convinced that the project has merit before expending considerable funds and possibly suffering the political repercussions if the project does not succeed. It was felt by the representatives of the Pembina Valley and Tiger Hills School Divisions that Submission No. 1 to HESP through the Deputy and Minister of Education helped to pave the way for a relatively quick decision by the Building and Projects committee and the Public Schools Finance Board. If senior officials of the Department of Education and members of HESP had previously approved of a project Coordinator, it was understood that approval for the project itself would be forthcoming.

The first major step has now been taken. It is only a matter of time and unforeseeable problems ahead that a comprehensive mobile industrial arts and home economics

program will finally become a reality in one rural area in the Province of Manitoba.

CHAPTER VII

SUMMARY AND CONCLUSIONS

INTRODUCTION

This case study examined the development and methods used by which justification was established for the introduction of mobile industrial arts and home economics facilities in the Pembina Valley School Division and the Pilot Mound School in the Tiger Hills School Division.

THE PROBLEM

The chief purpose of this study was to trace the development of a mobile industrial arts and home economics modules concept from the time of inception of the idea through to the securing of official approval of the project from the Manitoba Department of Education.

THE PROCEDURE

A case study approach was used to establish the need and trace the development of a mobile industrial arts and home economics concept from its initial stages to its final approval.

Data was collected from letters and correspondence

between the Pembina Valley School Division and the Manitoba Department of Education, official school board minutes of the Pembina Valley and Tiger Hills School Divisions, surveys of students, parents and teachers and personal conversations with various members of the Department of Education.

THE FINDINGS

The study focussed on three main areas in discussing mobile industrial arts and home economics facilities. Basic data was collected to ascertain the justification of the basic concept to the Manitoba Department of Education.

Cooperative Ability of Rural School Divisions

One important aspect of any future cooperative venture between school divisions is the extent to which the divisions have cooperated in the past. This study focussed primarily on shared occupational and academic programs. In both instances, the expansion of the programs indicated student support. Parental support to questionnaires pertaining to both shared programs substantiated the student support.

Justification of an Industrial Arts and Home Economics Program

Enrolment projections at the Grades 7 - 12 level showed that there were sufficient numbers of students to justify the establishment of an industrial arts and home economics program. Also, through the questionnaire technique, overwhelming acceptance of an industrial arts and

home economics program was shown from students, parents and teachers.

Justification of Mobile Facilities

The following reasons were put forth to justify the establishment of mobile industrial arts and home economics facilities:

Busing. At the present time, students from the outlying areas of the school division are bused to schools which are located in the larger towns. Mobile industrial arts and home economics facilities would alleviate the additional time and expenditure of busing some of the students to permanent facilities located elsewhere.

Community rivalry over permanent site location. Mobile facilities would eliminate the possible community rivalry over the location of a single permanent facility in the area. The three larger communities involved would share equally the advantages of the total program in industrial arts and home economics.

The encouragement of sharing between communities. The sharing of mobile facilities would possibly enhance the Unitary concept and thus encourage greater cooperation between communities in the sharing of other educational and community programs.

Capital investment. As noted in Appendix G, mobile facilities represent a reduced capital investment when compared with permanent facilities.

Redundancy of programs and facilities. In rural areas with declining enrolments, the possibility exists that in future years there will be an insufficient enrolment to justify the need for industrial arts and home economics as it presently exists. If such is the case, one or more of the mobile modules can easily be moved to other areas of the province.

Other advantages of mobile facilities not dealt with specifically, may include:

Services of specialized personnel otherwise not available. Mobile facilities insure that specialized teachers in industrial arts and home economics would be available to give assistance to other teachers in the school system.

Availability of special instructional materials and equipment. Mobile facilities with specialized materials and equipment would be available to supplement existing materials and equipment in other academic areas. This would be particularly significant in the area of science.

Stimulation of the total educational program. Many of the existing educational programs have little relevance to students in terms of their practical applicability.

Students involved in an industrial arts and home economics program would be in a position to apply their theoretical knowledge gained from academic classroom experience to practical application in a technical orientated laboratory. Possibly because of this, other academic programs would become more meaningful and interesting to the student.

Possible closer general cooperation between schools and agencies participating in a common program. Rural areas of Manitoba have long been noted for their effective 4-H programs. If the school and community could work together in providing a common program, this would enhance the possibility that the community will become involved in other areas of education as well.

In summary, the mobile delivery approach to industrial arts and home economics appears to offer the best opportunity to fulfill the promise of the "stay option" and of meeting the ideal of small, community related schools responsive to a local identity.

CONCLUSIONS AND RECOMMENDATIONS

The introduction of mobile industrial arts and home economics facilities appears to hold great promise for rural, northern and inner city jurisdictions in the province. Careful planning is essential and full participation of students, teachers, administrators, trustees and parents is necessary to ensure that an innovative project such as this will be

given an opportunity to succeed. Some negative aspects of this concept have not been previously discussed however they should be considered in terms of local needs and expenditures.

It appears that mobile facilities are less costly than permanent facilities. Because of this, additional funding can be allocated to program equipment. On the other hand, mobile facilities demand equal or increased costs in terms of staffing.

If great emphasis is placed on vocational education in any given school division, the possibility may exist that mobile facilities are viewed as a second class solution.

Mobile facilities cannot deliver a complete program in some areas of the curriculum. An example of this may be in the automotive or building trades.

The structured nature of a mobile program gives little opportunity for expansion or modification to meet local needs. This aspect points to the need for careful planning in terms of needs assessment.

It is felt that this study has accomplished a number of major objectives. The Department of Education has revised or expanded its thinking in terms of mobile facilities as a viable alternative in offering vocational programs.

A route has been established whereby requests for similar projects can be facilitated efficiently and quickly in terms of the involvement of the Building and Projects committee and the Public Schools Finance Board of the Department of Education.

The groundwork has been laid whereby the Manitoba Department of Labour has been involved in terms of certifying mobile facilities for classroom use.

If any school division after assessing its needs in terms of programs and facilities, believes that mobile facilities are a viable alternative to a permanent structure, a turn-key building program could be accomplished within a period of three to four months from the date of request. This in itself is a major step in building construction and program implementation.

As mentioned previously, the first step has been taken in providing an alternative delivery system in industrial arts and home economics. Much work remains to be done in terms of program and facility evaluation. This could include:

1. Do the units really achieve their objectives to the extent indicated?

2. Do mobile programs tend to perpetuate unsatisfactory conditions by providing a minimum of services where broader services are immediately needed?

3. Do mobile specialists and local staff work efficiently together?

4. What is the actual per pupil cost for mobile services when all factors such as travel time, facility cost and maintenance, administrative costs and salaries are computed--and how does this compare to other alternatives?

5. To what extent does novelty contribute to the success of mobile units--do positive results remain when a program has been in existence for three, four, five years or more?

The mobile unit appears to hold so much promise for education in rural areas that a disservice may be done to its further application if broad, relevant evaluation is not carried out.

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APPENDIX

APPENDIX A

A Previous Study on

SITE LOCATION

for

PERMANENT INDUSTRIAL ARTS/
HOME ECONOMICS FACILITIES

SITE LOCATION

for

PERMANENT INDUSTRIAL ARTS/

HOME ECONOMICS FACILITIES

The attached study was undertaken earlier this year using actual distances and 1974 statistics.

Discrepancies are evident between this report and the latest submission however, this study may be useful as a guide in explaining our position in terms of requesting mobile modules.

Eligible Students Transported Capital Costs not included	TRANSPORTATION EXPENDITURES PEMBINA VALLEY SCHOOL DIVISION				
Buses Per Pupil Cost	1971	1972	1973	1974	*1975
DIVISION	144.38	148.86	160.53	193.48	253.70
CONTRACT	187.60	186.16	205.18	237.26	390.86
AVERAGE	173.47	168.58	176.80	205.37	281.85

*Estimated

Department of Education grant - $190.00 per student

PEMBINA VALLEY SCHOOL DIVISION NO. 27

DECLINING ENROLMENT AND EDUCATIONAL ALTERNATIVES IN SMALL RURAL MANITOBA SCHOOL DIVISIONS

A STUDY AS SUBMITTED TO A JOINT COMMITTEE OF THE PEMBINA VALLEY SCHOOL DIVISION NO. 27 AND THE TIGER HILLS SCHOOL DIVISION NO. 29

SUBMITTED BY

RONALD DALBY

MANITOU, MANITOBA

FEBRUARY 1975

CONTENTS

ASSUMPTIONS

Assumption 1.

The enrolment statistics as shown do not include the drop-out or movement of students.

Assumption 2.

The drop-out factor at the Collegiate level is more significant than at the Jr. High level.

Assumption 3.

The enrolment statistics are only recorded for the 1977/78 to 1979/80 school years since it is anticipated that if any educational plan was approved, implementation could not be instituted until such time as indicated.

Assumption 4.

A larger percentage of the Jr. High students would be involved in a Vocational Program than those students at the Collegiate level.

Assumption 5.

In calculating the student/miles, the mileage as indicated is tabulated on the basis that every eligible student (Grades 7-12) will be involved in a Vocational Program. In reality, the above will not be true. It is assumed however, for statistical purposes, that there will be a proportional reduction in total student involvement in each of the participating schools.

Assumption 6.

Since representatives of the Department of Education have been interested in our proposal for a Vocational Program in this region, it is assumed that after further study and compromise from all concerned, a program such as this could become a reality.

ENROLMENT

1977/78

ELEMENTARY (K-6)

Crystal City	- 71	
Pilot Mound	- 177	
Manitou	- 216	

JUNIOR HIGH (7-9

Crystal City	- 148	233
Pilot Mound	- 85	
Manitou	- 149	

SENIOR HIGH (10-12)

Crystal City	- 134	226
Pilot Mound	- 92	
Manitou	- 175	

JUNIOR-SENIOR (7-12)

Crystal City	- 282	
Pilot Mound	- 177	
Manitou	- 324	
	783	

TOTAL ENROLMENT (K-12)

Crystal City	- 353
Pilot Mound	- 354
Manitou	- 540

ENROLMENT

1978/79

ELEMENTARY (K-6)

Crystal City - 64

Pilot Mound - 162

Manitou - 211

JUNIOR HIGH (7-9)

Crystal City - 125

Pilot Mound - 84

209

Manitou - 134

SENIOR HIGH (10-12)

Crystal City - 134

Pilot Mound - 98

Manitou - 182

JUNIOR - SENIOR (7-12)

Crystal City - 259

Pilot Mound - 182

Manitou - 316

757

TOTAL ENROLMENT (K-12)

Crystal City - 323

Pilot Mound - 344

Manitou - 527

ENROLMENT

1979/80

ELEMENTARY (K-6)

Crystal City - 62

Pilot Mound - 159

Manitou - 192

JUNIOR HIGH (7-9)

Crystal City - 110
Pilot Mound - 77 | 187

Manitou - 140

SENIOR HIGH (10-12)

Crystal City - 137
Pilot Mound - 94 | 231

Manitou - 158

JUNIOR - SENIOR (7-12)

Crystal City - 247

Pilot Mound - 171

Manitou - 298

716

TOTAL ENROLMENT (K-12)

Crystal City - 309

Pilot Mound - 330

Manitou - 490

GRADE STRUCTURE

1977/78

Crystal City		Pilot Mound	
K		K - 28	
1 - 17		1 - 25	
2 - 12		2 - 26	
3 - 6		3 - 24	
4 - 10		4 - 26	
5 - 12		5 - 17	
6 - 14		6 - 31	
10 - 76		7 - 78	
11 - 71	226	8 - 70	233
12 - 79		9 - 85	

1977/78

Crystal City		Pilot Mound	
K		K - 28	
1 - 17		1 - 25	
2 - 12		2 - 26	
3 - 6		3 - 24	
4 - 10		4 - 26	
5 - 12		5 - 17	
6 - 14		6 - 31	
7 - 78		10 - 76	
8 - 70	233	11 - 71	226
9 - 85		12 - 79	

GRADE STRUCTURE

1978/79

Crystal City		Pilot Mound	
K		K - 16	
1 - 7		1 - 28	
2 - 17		2 - 25	
3 - 12		3 - 26	
4 - 6		4 - 24	
5 - 10		5 - 26	
6 - 12		6 - 17	
10 - 85		7 - 61	
11 - 76	232	8 - 78	209
12 - 71		9 - 70	

1977/78

Crystal City		Pilot Mound	
K		K - 16	
1 - 7		1 - 28	
2 - 17		2 - 25	
3 - 12		3 - 26	
4 - 6		4 - 24	
5 - 10		5 - 26	
6 - 12		6 - 17	
7 - 61		10 - 85	
8 - 78	209	11 - 76	232
9 - 70		12 - 71	

GRADE STRUCTURE

1979/80

Crystal City		Pilot Mound	
K		K - 14	
1 - 10		1 - 16	
2 - 7		2 - 28	
3 - 17		3 - 25	
4 - 12		4 - 26	
5 - 6		5 - 24	
6 - 10		6 - 26	
10 - 70		7 - 48	
11 - 85	231	8 - 61	187
12 - 76		9 - 78	

1979/80

Crystal City		Pilot Mound	
K		K - 14	
1 - 10		1 - 16	
2 - 7		2 - 28	
3 - 17		3 - 25	
4 - 12		4 - 26	
5 - 6		5 - 24	
6 - 10		6 - 26	
7 - 48		10 - 70	
8 - 61	187	11 - 85	231
9 - 78		12 - 76	

GRADE STRUCTURE

MANITOU

1977/78		1978/79		1979/80	
K - 23		K - 28		K - 23	
1 - 30		1 - 20		1 - 23	
2 - 33		2 - 30		2 - 20	
3 - 33		3 - 33		3 - 30	
4 - 30		4 - 33		4 - 33	
5 - 37		5 - 30		5 - 33	
6 - 30		6 - 37		6 - 30	
7 - 52		7 - 42		7 - 46	
8 - 40	149	8 - 52	134	8 - 42	140
9 - 57		9 - 40		9 - 52	
10 - 61		10 - 57		10 - 40	
11 - 64	175	11 - 61	182	11 - 57	158
12 - 50		12 - 64		12 - 61	

SITE LOCATION

YEAR: 1977/78

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 7 - 9

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	148	5.2	769.6
Pilot Mound	Manitou	149	18.8	2801.2
				3570.8
Crystal City	Pilot Mound	85	5.2	442.0
Crystal City	Manitou	149	24.0	3576.0
				4018.0
La Riviere	Crystal City	148	16.9	2501.2
La Riviere	Pilot Mound	85	11.7	994.5
La Riviere	Manitou	149	7.1	1057.9
				4553.6
Manitou	Crystal City	148	24.0	3552.0
Manitou	Pilot Mound	85	18.8	1598.0
				5150.0

SITE LOCATION

YEAR: 1977/78

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 10 - 12

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	134	5.2	696.8
Pilot Mound	Manitou	175	18.8	3290.0
				3986.8
Crystal City	Pilot Mound	92	5.2	478.4
Crystal City	Manitou	175]	24.0	4200.0
				4678.4
La Riviere	Crystal City	134	16.9	2264.6
La Riviere	Pilot Mound	92	11.7	1067.2
La Riviere	Manitou	175	7.1	1242.5
				4574.3
Manitou	Crystal City	134	24.0	3216.0
Manitou	Pilot Mound	92	18.8	1729.6
				4945.6

SITE LOCATION

YEAR: 1977/78

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 7 - 12

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	282	5.2	1466.4
Pilot Mound	Manitou	324	18.8	6091.2
				7557.6
Crystal City	Pilot Mound	177	5.2	920.4
Crystal City	Manitou	324	24.0	7776.0
				8696.4
La Riviere	Crystal City	282	16.9	4765.8
La Riviere	Pilot Mound	177	11.7	2070.9
La Riviere	Manitou	324	7.1	2300.4
				9137.1
Manitou	Crystal City	282	24.0	6768.0
Manitou	Pilot Mound	177	18.8	3327.6
				10095.6

SITE LOCATION

YEAR: 1978/79

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 7 - 9

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	125	5.2	650.0
Pilot Mound	Manitou	134	18.8	2519.2
				3169.2
Crystal City	Pilot Mound	84	5.2	436.8
Crystal City	Manitou	134	24.0	3216.0
				3652.8
La Riviere	Crystal City	125	16.9	2112.5
La Riviere	Pilot Mound	84	11.7	982.8
La Riviere	Manitou	134	7.1	951.4
				4046.7
Manitou	Crystal City	125	24.0	3000.0
Manitou	Pilot Mound	84	18.8	1579.2
				4579.2

SITE LOCATION

YEAR: 1978/79

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 10 - 12

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	134	5.2	696.8
Pilot Mound	Manitou	182	18.8	3421.6
				4118.4
Crystal City	Pilot Mound	98	5.2	509.6
Crystal City	Manitou	182	24.0	4368.0
				4877.6
La Riviere	Crystal City	134	16.9	2264.6
La Riviere	Pilot Mound	98	11.7	1146.6
La Riviere	Manitou	182	7.1	1292.2
				4703.4
Manitou	Crystal City	134	24.0	3216.0
Manitou	Pilot Mound	98	18.8	1842.4
				5058.4

SITE LOCATION

YEAR: 1978/79

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 7 - 12

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	259	5.2	1346.8
Pilot Mound	Manitou	316	18.8	5940.8
				7287.6
Crystal City	Pilot Mound	182	5.2	946.4
Crystal City	Manitou	316	24.0	7584.0
				8530.4
La Riviere	Crystal City	259	16.9	4377.1
La Riviere	Pilot Mound	182	11.7	2129.4
La Riviere	Manitou	316	7.1	2243.6
				8750.1
Manitou	Crystal City	259	24.0	6216.0
Manitou	Pilot Mound	182	18.8	3421.6
				9637.6

SITE LOCATION

YEAR: 1979/80

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 7 - 9

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	110	5.2	572.0
Pilot Mound	Manitou	140	18.8	2632.0
				3204.0
Crystal City	Pilot Mound	77	5.2	400.4
Crystal City	Manitou	140	24.0	3360.0
				3760.4
La Riviere	Crystal City	110	16.9	1859.0
La Riviere	Pilot Mound	77	11.7	900.9
La Riviere	Manitou	140	7.1	994.0
				3753.9
Manitou	Crystal City	110	24.0	2640.0
Manitou	Pilot Mound	77	18.8	1447.6
				4087.6

SITE LOCATION

YEAR: 1979/80

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 10 - 12

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	137	5.2	712.4
Pilot Mound	Manitou	158	18.8	2970.4
				3682.8
Crystal City	Pilot Mound	94	5.2	488.8
Crystal City	Manitou	158	24.0	3792.0
				4280.8
La Riviere	Crystal City	137	16.9	2315.3
La Riviere	Pilot Mound	94	11.7	1099.8
La Riviere	Manitou	158	7.1	1121.8
				4536.9
Manitou	Crystal City	137	24.0	3288.0
Manitou	Pilot Mound	94	18.8	1767.2
				5055.2

SITE LOCATION

YEAR: 1979/80

INDUSTRIAL ARTS - HOME ECONOMICS GRADE: 7 - 12

STUDENT MILES

Location	Student Movement	Total Students	Miles Travelled	Student/ Miles
Pilot Mound	Crystal City	247	5.2	1284.4
Pilot Mound	Manitou	298	18.8	5602.4
				6886.8
Crystal City	Pilot Mound	171	5.2	889.2
Crystal City	Manitou	298	24.0	7152.0
				8041.2
La Riviere	Crystal City	247	16.9	4174.3
La Riviere	Pilot Mound	171	11.7	2000.7
La Riviere	Manitou	298	7.1	2115.8
				8290.8
Manitou	Crystal City	247	24.0	5928
Manitou	Pilot Mound	171	18.8	3214.8
				9142.8

SITE LOCATION

INDUSTRIAL ARTS - HOME ECONOMICS

DATA: Based on Student/miles Travelled only

	1977/78	1978/79	1979/80
Crystal City	8696.4	8530.4	8041.2
Pilot Mound	7557.6	7287.6	6886.8
	1338.8	1242.8	1154.4
La Riviere	9137.1	8750.1	8290.8
Pilot Mound	7557.6	7287.6	6886.8
	1579.5	1462.5	1404.0
La Riviere	9137.1	8750.1	8290.8
Crystal City	8696.4	8530.4	8041.2
	440.7	219.7	249.6

SITE LOCATION

INDUSTRIAL ARTS - HOME ECONOMICS

Conclusions:

Based on Student/Miles Travelled only.

1) Pilot Mound most ideal site.

2) Manitou least ideal site.

3) Crystal City 2nd ideal site for Jr. High.

4) La Riviere 2nd ideal site for Sr. High.

5) Pilot Mound vs Crystal City 1977/78 - 1979/80

- Crystal City becomes more desirable

6) Pilot Mound vs La Riviere 1977/78 - 1979/80

- La Riviere becomes more desirable

7) Crystal City vs La Riviere 1977/78 - 1979/80

- La Riviere becomes more desirable

CLASSROOM AVAILABILITY

Pilot Mound

17 - classrooms

2 - labs

1 - library

1 - lounge

Thomas Greenway

7 - classrooms

2 - labs

1 - business education

1 - library

Crystal City Elementary

8 - classrooms

AREAS FOR FURTHER STUDY

1. The location of the existing Occupational program in terms of the proposed Industrial Arts - Home Economics program.

2. Staffing patterns and how they are affected by the above.

3. Transportation patterns.

4. An analysis of the proposed costs involved in terms of the existing Provincial grant structure.

5. The participation of the Department of Indian Affairs and Northern Development in the proposed project.

6. The possibility of the inclusion of other schools in the Tiger Hills School Division and the Mountain School Division in the proposed project.

7. The development of a time-line for the possible implementation of the educational alternatives.

Pembina Valley School Division No. 27

ADMINISTRATION OFFICE

BOX 459
MANITOU - MANITOBA
ROG 1GO

PHONE 242-2797

APPENDIX B

C. DALBY
IPERINTENDENT OF SCHOOLS

C. G. ARBUCKLE
SECRETARY-TREASURER

L. E. MILLER
CO-ORDINATOR OF SPECIAL SERVICES

March 5th, 1975

Mr. Ben Epp
Secretary
Building Projects Committee
Room 511
1181 Portage Avenue
WINNIPEG, Manitoba
R3G 0T3

Dear Mr. Epp:

In a study which was authorized by a joint committee of the Pembina Valley School Division and the Tiger Hills School Division, the main thrust was to investigate all avenues of possible co-operation between the two division. To be included in this study was the viability of locating a separate Junior High and a separate Senior High program in Crystal City and Pilot Mound.

In conjunction with the academic program, the feasibility of establishing Industrial Arts and Home Economics facilities in this region was also investigated. In meeting with Department of Education officials, a positive response was received. The two divisions were requested by the Department of Education to submit a Board motion requesting the Department to investigate further, the possibility of obtaining the above services for this region.

At the regular Board Meeting on Tuesday, February 25th the Board of Trustees of the Pembina Valley School Division passed the following motion:

> "that the Board of Trustees of the Pembina Valley School Division No. 27 respectfully requests the Department of Education to examine the feasibility of establishing Industrial Arts and Home Economics facilities in this region; and also that support is solicited from the Tiger Hills School Division No. 29 in our request for the aforementioned facilities."

..... 2

Ben Epp, Secretary, Building Projects Committee March 5th, 1975

The Board of Trustees of the Tiger Hills School Division have passed a motion supporting the Pembina Valley School Division in this regard.

Enclosed is a copy of a brief study which was undertaken by the Pembina Valley School Division.

Yours truly,

R. C. Dalby,
Superintendent of Schools

RCD/lg

Enc.

Province of Manitoba
Department of Education

Robert Fletcher Building
511-1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3

APPENDIX C

March 11th, 1975.

Mr. C. G. Arbuckle,
Secretary Treasurer,
Pembina Valley School Division No. 27,
Box 459,
Manitou, Manitoba,
ROG 1GO.

Mr. S. A. Oleson,
Secretary Treasurer,
Tiger Hills School Division No. 29,
Box 130,
Glenboro, Manitoba,
ROK OXO.

Gentlemen:

Re: Joint Industrial Arts - Home Economics Facilities

We have the Notice of Intent submitted by Mr. R. C. Dalby, Superintendent of Schools, Pembina Valley School Division No. 27 and dated March 5th, 1975 requesting that facilities be established for industrial arts/home economics on a joint basis between the two school divisions of Pembina Valley and Tiger Hills.

This project has been assigned to me for study.

Some pertinent information that will be useful in assessing this project and its extent would be a listing of all junior high pupils in both school divisions, as well as a listing of all existing shop facilities, home economics and industrial arts, in both school divisions. I will be contacting you further, hopefully to have a joint meeting between yourselves, myself and probably the two superintendents in the very near future.

Yours very truly,

B. M. Grafton, Secretary,
Projects Review Committee.

BMG/ed

APPENDIX D

TIGER HILLS-PEMBINA VALLEY SCHOOL DIVISIONS
SHARED INDUSTRIAL ARTS/HOME ECONOMICS PROGRAMS

At a recent meeting in Manitou involving Trustees and Superintendents from both Divisions Mr. Bernard Grafton of the Department of Education indicated a joint request for Industrial Arts/Home Economics facilities would receive favourable consideration by the Minister.

Current indications are that the student population in the Pilot Mound Crystal City, and Manitou area would support the establishment of 2 Home Economics and 2 (possibly 3) Industrial Arts areas. Given the space and program possibilities it would appear that the following would represent some of the possible alternatives:

1) Establish a major Industrial Arts/Home Economics complex at Pilot Mound.

   Under this alternative it is usggested that Pilot Mound would become a K/9 school with K/6 serving the existing area and 7/9 serving the present Pilot Mound and Crystal City needs. Crystal City would become a major Collegiate with all students in grades 10-12 from the Pilot Mound/ Crystal City areas attending school in Crystal City. Junior High students from Manitou would be bussed to Pilot Mound to participate in the Industrial Arts/Home Economics programs; Senior high students wishing to participate in advanced level courses would have to be bussed from both Crystal City and Manitou.

   From my point of view this is the preferred alternative as it would allow for optimal levels of staff utilization and program development.

2) Establish Industrial Arts/Home Economics Areas at both Pilot Mound and Manitou.

   This would involve the establishment of one each of a general shop and general Home Economics areas at each location. (Similar to that existing in Carberry.) Pilot Mound would offer Jr. High programs and Crystal City the Senior High program.

3) Mobile Facilities.

   All areas would be mobile and would be moved either yearly or each semester between points at Manitou and Pilot Mound/

Crystal City. Probably reorganization of Pilot Mound and Crystal City schools along Jr. High/Senior High lines would be carried out for reasons of more effective staff utilization--however, this would not necessarily take place.

4) Divided Facilities - Crystal City/Pilot Mound.

This might entail leaving existing programs as is and--for example--locating Home Economics facilities in Pilot Mound and Industrial Arts shops in Crystal City. Would have the disadvantage of not affording the most effective utilization of staff in other program areas.

The above is only a sketchy outline of possible alternatives and is offered as a possible beginning point for discussion between Boards and Administration.

Other points to be considered might include;

1) A joint meeting of the full Boards of Pembina Valley and Tiger Hills School Divisions should be held as soon as possible to establish the feasibility of continuing efforts to establish programs of this nature.

2) Prior to such a meeting the Chairmen of the Boards should probably meet in order to plan agenda, etc.

3) The possibility of integration of transportation facilities should be considered.

4) If any of the alternatives above seems to represent a clear possibility Notice of Intent should be sent to the Minister by the Board prior to the working out of all details of financing, administration, etc.

5) The Principals and Superintendents of each Division should be asked to prepare a report outlining savings in staff required for existing programs should Jr. and Sr. High programs be combined in Pilot Mound and Crystal City.

6) The Secretary-Treasurer of each Division should be asked to present proposals regarding procedures and formula with respect to the financing of any joint programs which might be established.

Pembina Valley School Division No. 27

ADMINISTRATION OFFICE

BOX 459
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APPENDIX E

C. DALBY
SUPERINTENDENT OF SCHOOLS

C. G. ARBUCKLE
SECRETARY-TREASURER

L. E. MILLER
CO-ORDINATOR OF SPECIAL SERVICES

June 23, 1975

Mr. G. D. Roberts
Co-ordinator, Vocational Education
310-1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3

Dear Mr. Roberts:

During the past year, the Pembina Valley School Division and the Tiger Hills School Division have been actively involved in a shared services program incorporating Academic, Business Education and Occupational components. Due to the success of the above and due to the inability of either Division, because of low and declining enrolment, to operate independently, the matter of Industrial Arts and Home Economics have also been under active consideration for some time.

An independent study by the Department under the guidance of Mr. Bernard Grafton, indicated that "a joint request for Industrial Arts/Home Economics facilities would receive favourable consideration by the Minister."

After considerable discussion between Trustees of both Divisions, the Board of Trustees of the Pembina Valley School Division passed a motion at a special meeting on May 20th, 1975 that

> "we proceed with the accumulation of required information for the filing of a 'Notice of Intent' to the Department of Education for the purchase of four (4) mobile educational modules."

The above motion was subject to the acceptance of the Tiger Hills School Division Board.

. . . /2

On June 17th, 1975 a complete combined Board Meeting was held in Pilot Mound to discuss the above motion. A final decision will be forthcoming by the Tiger Hills School Division Board on Tuesday, June 24th. Indications at this time imply that their decision will be positive.

Mobile Industrial Arts and Home Economics facilities are a relatively new concept in the delivery of what we feel are essential programs in our educational system. Educational needs vary from one division to another, however, four basic reasons why mobile facilities have been considered are as follows:

1. In areas of declining enrolment and a gradual change in the attitudes and priorities of rural residents, the thought of constructing a fixed structure or possible 'white elephant' are minimized.

2. Due to the relatively high special levy costs in rural areas, a mobile facility at this point appears to be less costly.

3. Mobile facilities tend to lessen the political implications of co-operating rural divisions.

4. Mobile Modules eliminate the costly time consuming and exhaustive process of transporting students over even greater distances in rural areas.

As mentioned previously, Mobile Industrial Arts and Home Economics facilities are a new concept in the delivery of essential educational services. Because of this we strongly feel that a Planning Co-ordinator is required to further develop this concept in conjunction with the Department of Education. Dr. Lional Orlikow has endorsed the need for such a Co-ordinator on a one year basis.

The salary for such a unique individual as outlined in the attached Job Description should at least be comparable to any Class 4 elementary classroom teacher in our Division - $17,050 per annum. Also, since considerable travel would be involved an allowance of $3,000 would not be unreasonable.

The purpose of this letter is therefore for you to consider in your budget estimates, a Planning Co-ordinator for our proposed Industrial Arts/Home Economics program. In regards to our planning, the position of a Planning Co-ordinator will be subject to the following:

. . . /3

1. Acceptance of our propcsal by the Tiger Hills School Division Board - June 24, 1975.

2. Ratification of our proposal for a Co-ordinator by the Pembina Valley School Division Board - June 25, 1975.

It is anticipated that a "Notice of Intent" will be forwarded to the Department in the near future.

If any further information is required, I may be contacted at the School Division Office in Manitou.

Yours truly,

R. C. DALBY,
Superintendent of Schools

RCD:mm
Attach

PLANNING CO-ORDINATOR

Job Description

The candidate's major responsibility is to research and plan for the delivery of Industrial Arts programs in the Pembina Valley and Tiger Hills School Divisions. Consultive and planning service is to be provided in:

I. Program Identification

1.1 The collection of data

1.2 The justification of programs including in-services for and consultation with present staff members

1.3 The identification of resources
- local school level within Division
- community
- provincial

II. Program Development

2.1 The identification of target population

2.2 The exercise of task analysis

2.3 The development of performance objectives

2.4 The planning of courses
- curriculum development

2.5 The identification of staffing and equipment requirements

2.6 The planning of facilities including planning for equipment and space use

2.7 The identification of ancillary services

2.8 The planning for evaluation of the project after implementation

2.9 The carrying out of necessary liaison with Department of Education officials in co-operation with School Division officials

3.0 Planning the schedules for the usage of facilities within the framework of the two division concept

The hiring division should establish criteria regarding:

(a) personal qualifications

(b) formal educational requirements

(c) work experience

Pembina Valley School Division No. 27

ADMINISTRATION OFFICE

BOX 459
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C. DALBY
SUPERINTENDENT OF SCHOOLS

C. G. ARBUCKLE
SECRETARY-TREASURER

L. E. MILLER
CO-ORDINATOR OF SPECIAL SERVICES

APPENDIX F

August 28, 1975

Mr. B. Epp, Secretary
Building Porjects Committee
511-1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3

Dear Mr. Epp:

RE: NOTICE OF INTENT

At a regular meeting of the Board of Trustees held on the 27th day of August, 1975 a resolution was passed stating as follows:

> "That the Pembina Valley School Division No. 27, with the support of the Tiger Hills School Division No. 29, hereby requests the establishment of Industrial Arts/Home Economics facilities in the Manitou, Pilot Mound and Crystal City area; and also that the Industrial Arts/Home Economics facilities be comprised of four (4) mobile educational modules."

During the past year, the Pembina Valley School Division and the Tiger Hills School Division have been actively involved in a shared service program incorporating Academic, Business Education and Occupational components. Due to the success of the above and due to the inability of either Division, because of low and declining enrolment, to operate independently, the matter of shared Industrial Arts/Home Economics programs and facilities has also been under active consideration for some time.

On June 17th, 1975 a complete combined Board Meeting was held in Pilot Mound to discuss the matter of Shared Services as well as Industrial Arts/Home Economics facilities for this region.

On June 24th, 1975, the Board of Trustees of the Tiger Hills School Division No. 29 passed the following resolution (attached):

. . . /2

"that this Board support the Pembina Valley School Division No. 27 Notice of Intent to institute an Industrial Arts/Home Economics program in the Manitou-Pilot Mound-Crystal City area on a shared services basis."

After thoroughly discussing the alternatives as outlined by Mr. B. Grafton (letter attached) and observing Industrial Arts and Home Economics alternatives in Arkansas, it was decided to request the Department of Education to consider mobile educational modules.

Mobile Industrial Arts and Home Economics facilities are a relatively new concept in the delivery of what we feel are essential programs in our educational system. Educational needs vary from one division to another, however, four basic reasons why mobile facilities have been considered are as follows:

1. In areas of declining enrolment and a gradual change in the attitudes and priorities of rural residents, the thought of constructing a fixed structure or possible 'white elephant' is minimized.

2. Due to the relatively high special levy costs in rural areas, a mobile facility at this point appears to be less costly.

3. Mobile facilities tend to lessen the political implications of co-operating rural divisions.

4. Mobile Modules eliminate the costly time consuming and exhaustive process of transporting students over even greater distances in rural areas.

In a study which was authorized by a joint committee of the Pembina Valley School Division and the Tiger Hills School Division as well as an independent study of our area by the Department of Education regarding shared Industrial Arts/ Home Economics programs, both the need as well as a sufficient student population to support such programs was established. Also, up to the present time, acceptability of such programs by students, teachers, administrators and parents has been very positive.

An application has been forwarded to the Vocational Education Branch of the Department of Education for the funding of a Planning Co-ordinator on a one (1) year basis for the development of the aforementioned Industrial Arts/Home Economics Project.

. . . /3

It would be appreciated if the above Notice of Intent for the construction of Industrial Arts/Home Economics facilities on a shared-services basis would receive your favorable consideration.

Yours respectfully,

C. G. ARBUCKLE,
Secretary-Treasurer

CGA:mm
Attach

Tiger Hills School Division No. 29

Office of the Secretary-Treasurer

Telephone 115 P.O. Box 130

GLENBORO, MANITOBA
R0K 0X0

August 25, 1975

To Whom it may Concern:

This will certify that the Board of Trustees of the Tiger Hills School Division No. 29 passed the following Resolutions at a regular meeting of the Board held on Tuesday, June 24th, 1975:

"That this Board support the Pembina Valley School Division No. 27 Notice of Intent to institute an Industrial Arts/Home Economics program in the Manitou-Pilot Mound-Crystal City area on a shared services basis."

"That this Board joins with the Pembina Valley School Division No. 27 and request the Minister of Education to provide funds to cover the cost of employing a Co-ordinator to assist in the development of the proposed Industrial Arts/Home Economics program in the Manitou-Pilot Mound-Crystal City area."

Certified Correct

.....
S. A. Cleson
Secretary-Treasurer

APPENDIX G

SUBMISSION TO HESP SUBCOMMITTEE

FROM DEPARTMENT OF EDUCATION

VOCATIONAL EDUCATION SECTION

SEPTEMBER 18, 1975

PURPOSE

To support a proposal from the School Division of Pembina Valley for funds to hire a master teacher who would facilitate the installation of a mobile delivery system for industrial arts and home economics programs.

BACKGROUND

There is a general agreement in North America that industrial arts and home economics programs should be a part of the school experience for every student. Most Manitoba divisions offer these programs at the junior high school level. However, a number of rural and northern schools do not. Small numbers of students, scattered populations and declining enrollments have made the capital investment in hard site construction uneconomic. At the present time a single industrial arts shop (built as an extension of an existing building) involves capital costs of approximately $153,000, exclusive of instructional tools and equipment. It should be noted that a single shop can only deliver a part of the basic industrial arts curriculum.

One approach to this problem has been to build hard site facilities at selected communities within a division and bus students to these facilities. The success of this approach depends on the distance involved in moving students. Parents and students resist busing for a variety of reasons and a strong sense of community often makes decisions on facility site selection difficult.

Mobile Facilities

The use of mobile facilities is one approach that overcomes a number of the problems associated with hard site construction. Simply put, this approach involves moving the facility to the student rather than moving the student to the facility.

In a typical mobile delivery system a number of mobile units,

each equipped and staffed to deliver a specific curriculum, move in a "round robin" or cycle from school to school. During any given time cycle students at each school are exposed to all the learning experiences offered through the mobile units.

A typical unit consists of a custom built trailer approximately 60' x 12'. This unit is towed from school to school by a rented tractor unit. Most units can accommodate eighteen to twenty students at one time and are fully equipped with tools, materials, and instructional equipment.

The advantages and disadvantages of mobile delivery systems taken from a social, economic, and educational point of view, are summarized in attachment A. Attachment B is exemplary Mobile Unit costs and attachment C is comparative cost.

The Pembina Valley School Division

This division has been plagued with problems typical of rural divisions in Manitoba. These problems center around declining populations in a social climate of rising expectations. The division has never offered industrial arts and home economic programs.

The divisions educational delivery system centers around facilities at Crystal City and Manitou separated by twenty-five miles of good road in a east west line. The school facility at Pilot Mound lies four miles to the North East of Crystal City but is in the School Division of Tiger Hills. Any development in this area should include the Pilot Mound School.

For a number of years Pembina Valley has been involved in a retrenchment of its educational system and a cooperative effort has developed between Crystal City and Pilot Mound. In March, 1975, Pembina Valley approached the Department of Education with a preliminary request for industrial arts and home economic facilities to be shared with the Pilot Mound School. The initial investigation indicated the division's entitlement to such facilities under current regulations and a number of possible facility arrangements were presented for consideration. These included a variety of hard site facility arrangements and the possibility of a mobile delivery system. By this time both Pembina Valley and Tiger Hills were leaning toward the mobile solution.

At the present time two requests from Pembina Valley, supported by Tiger Hills, are before the Department of Education. The

first request is in the form of a notice of intent presented to the Building and Projects Committee for the purchase of mobile delivery units. The second request, submitted to the Vocational Education Section on June 23, 1975, is the subject of this submission to HESP.

PROPOSAL

The Proposal as Received From Pembina Valley

That the Department of Education, (Vocational Education Section), grant funds to Pembina Valley to:

1.	Hire a Planning Coordinator for one year at	$17,050
2.	Allow travelling expenses to the amount of	3,000
	Total	$20,050

This request to the Vocational Education Section is endorsed by the School Boards of Pembina Valley and Tiger Hills School Divisions.

The duties of this Planning Coordinator would be to:

a. Develop specific courses of study keyed to local needs.

b. Work with the manufacturer to design and equip the units for course needs.

c. Supervise trailer site preparation at each using school.

d. Arrange schedules.

e. Assist the superintendent and principals in staff development related to the new program.

f. Prepare to serve as a master teacher during the teething period of initial operation.

The Vocational Education Section's Recommendation for Modification of this Proposal

The Vocational Education Section supports this request from Pembina Valley with the following modifications:

1. That the period of employment be reduced to six months.

2. That the individual concerned be hired on the condition that he or she serve as a master teacher when the mobile system becomes operational.

3. That, therefore, the funds made available to Pembina Valley amount to $10,000 inclusive of any travelling expenses.

The rationale governing this position by the Vocational Education Section is that department personnel are available to perform tasks B and C as outlined above and that these tasks will be performed in the due course of normal departmental activity.

RATIONALE

The goal is to help the School Divisions of Pembina Valley and Tiger Hills provide an opportunity for industrial arts and home economic programing. The rationale for supporting the proposal is based on the following:

1. The respective school boards have examined the pros and cons of various delivery systems.

2. The mobile approach meets some of the unique problems of these divisions.

3. The development of a mobile delivery system has great significance for other parts of the province, particularly in the North as a delivery system for Vocational Education.

4. That the cost of such a system will be favourably comparable with hard site facilities.

RECOMMENDATION

It is recommended that:

HESP recommend the Vocational Education Section's modification for funding e.g. $10,000 for six months.

NOTE: (In anticipation of requests to support the development of alternative vocational and/or practical arts delivery

systems, the Vocational Education Section requested and received budget funds of approximately $55,000 in the 1975-76 Departmental Budget. A requirement made by Cabinet was that expenditures from this budget item be recommended by HESP. These budget monies are identified as Appropriation #21-5b-2, Distribution #05-12-021.)

The Honourable Ben Hanuschak
Minister of Education

Date_____

ATTACHMENT A

POSITIVE AND NEGATIVE ASPECTS OF MOBILE DELIVERY SYSTEMS

POSITIVE SOCIAL ASPECTS

1. The elimination of the need to bus students to permanent facilities.
2. The elimination of community rivalry over hard site location.
3. A reduction of feelings of neglect vis-a-vis the urban systems.
4. The encouragement of sharing between communities.

NEGATIVE SOCIAL ASPECTS

1. The possibility of feeling that mobile facilities are a second class solution.
2. The negative back lash which will occur after the initial Hawthorne Effect diminishes.

POSITIVE ECONOMIC ASPECTS

1. In most cases a reduced capital investment when compared with hard site construction. (Please see attachment B and C)
2. The possibility of serving a larger target population with a given facility (reduced per pupil cost.)
3. The capacity of retrieving and re-assigning a mobile unit if the unit becomes redundant in a particular region.
4. The capacity of holding the line on busing costs.

NEGATIVE ECONOMIC ASPECTS

1. Equal or increased staffing costs when compared to permanent sites.

POSITIVE EDUCATIONAL ASPECTS

1. The structured and pre-engineered nature of the unit and its program which increase the probability that pre-identified objectives are reached.

NEGATIVE EDUCATIONAL ASPECTS

1. The inability of delivering a complete program in some curricula e.g. it is impossible to train auto mechanics without a sheltered space available so students can work on cars. (Note: This aspect makes it difficult to compare a program on a one-to-one basis when considering mobile versus hard site facilities.)

2. The structured nature of a mobile program gives little opportunity for expansion or modification to meet local needs. (Note: This aspect points to the need for careful preliminary planning in terms of need assessment.)

ATTACHMENT B

EXEMPLARY COSTS OF MOBILE

VOCATIONAL FACILITIES

NOTE: These prices are believed to be competitive.

These units are designed to stand alone as a complete educational facility and are constructed to exceed the most rigid specifications of hard site construction.

Each unit is designed to serve eighteen to twenty students in a particular curriculum. The units are complete with hardware and software and over fifty different units are available including designs for elementary, middle, secondary, post secondary vocational and industrial levels of training.

The exemplary units priced below are equipped to deliver training up to an adult vocational level.

Curricula	Price f.o.b. Benton Arkansas
Health Occupations	$ 45,000
Home Economics	40,000
Machine Shop	70,000
Construction	37,000
Welding	86,000
Electricity - Electronics (Note: This unit delivers three programs in this curricula)	85,000
Automotive	55,000
Office Practice	44,000
Drafting	36,000
Average Unit Cost	$ 55,333.00
Extra for Insulation to Manitoba Conditions	309.12
Transportation Cost	2,324.00
Total Average Cost Delivered in Manitoba Exclusive of any Import Taxes	$ 57,966.12

ATTACHMENT C

COMPARATIVE COST HARD SITE

VERSUS MOBILE UNITS

The following are approximate costs for a dual program lab facility in metals and power.

Conventional Hard Site Construction (2,800 sq. ft.)[1] serving twenty students with one teacher.

Facility Cost	$ 153,000.00
Equipment Cost	25,000.00
Total	$ 178,000.00

Pre-engineered Construction (2,480 sq. ft.)[2] serving twenty students with one teacher.

Facility Cost	$ 87,240.00
Equipment Cost	25,000.00
Total	$ 112,240.00

Two Mobile Units (1,440 sq. ft.)[3] serving forty students with two teachers.

One Machine Shop (complete) @	$ 70,000.00
One Automotive Shop (complete) @	55,000.00
Delivery Charges @ 2,324 each	4,648.00
Extra Insulation @ 309.12 each	618.24
Total	$ 130,266.24

1. These are estimates for new construction or an add on to an existing building.

2. This is exact facility cost occurred in the construction of the free standing pre-engineered shop at St. Jean. (1974)

3. These costs are in U.S.A. funds and are exclusive of import tax. It should be noted that these units are equipped to a vocational level.

APPENDIX H

PEMBINA VALLEY SCHOOL DIVISION NO. 27

SCHOOL _____

Dear Parent:

In order to help us estimate our future classroom requirements, would you please complete this form and return it to the school by Thursday, October 2nd.

If you receive more than one of these forms, please complete one only.

Name of Parents		
Address & Telephone Number		
	Name of Child	Date of Birth
Children born during 1971		
Children born during 1972		
Children born during 1973		
Children born during 1974		
Children born during 1975		

If you know of a family who have pre-school children and none presently in school, please note their name and address below and the school principal will contact them.

Name of Family
Address

APPENDIX I

Swan Lake Band #7
Swan Lake, Manitoba
October 27, 1975

Superintendant of School
Pembina Valley School Division
Manitou, Manitoba

Dear Sir:

Re - Occupational Enrichment Courses

Chief Roy McKinney and the Councillors of the Swan Lake Band enthusiastically support the O.E.C Program now implemented in the Pilot Mound School.

Principal Frank Arnett attended a meeting with the Chief and Council previous to the school term and discussed the program and indicated some of our students, especially the boys would benefit from such instruction and inturn, this would probably improve attendance.

The Chief and Council fully agreed that this was the proper approach recognizing the fact that some of our boys had missed too many days, and could not progress in the University Entrance courses.

This year with the boys attending the O.E.C course, the attendance is perfect and the boys are enjoying every minute of the time spent in shops. This incidently has improved the Mathematics and English classes also.

The Chief and Council feel that with more trailer type shops, we would have an excess to electronics, mechanics and other types of technology programs.

School trustee, Richard Cameron is in full agreement with this educational program and hopes this will expand, to include a number of school districts , this way making full use of a number of Van like shops

and be more readily available to all students, boys and girls alike.

Hoping this will assist you in your efforts.

Further recommendations can be received from the Chief and Council and Trustee for the Reserve Richard Cameron.

Thanking you.

Yours truly,

Pembina Valley School Division No. 27

ADMINISTRATION OFFICE

BOX 459
MANITOU - MANITOBA
ROG 1GO

PHONE 242-2797

APPENDIX J

R. C. DALBY
SUPERINTENDENT OF SCHOOLS

C. G. ARBUCKLE
SECRETARY-TREASURER

L. E. MILLER
CO-ORDINATOR OF SPECIAL SERVICES

October 1975

Dear Parent:

We are trying to determine how much community interest there is in obtaining the facilities for and in adding some instruction in industrial arts and home economics to our Jr. High educational program.

Some of the topics that could be studied by the students might include graphics (related to the printing trade), energy and power, electrical/electronics and home economics (foods and nutrition, clothing and textiles, family and community relationships).

Today, we asked your son/daughter to fill out an interest questionnaire which we hope will help us determine the general level of student interest in these areas. However, we are very much interested in your desires for your children. Therefore, we would appreciate it if you would check off one of the two statements below and then return the bottom section of this letter to your son's/daughter's teacher.

Thank you for your assistance.

Yours truly,

R. C. Dalby,
Superintendent of Schools

RCD/ls

Please return this section

PARENTS: Please check one.

_____ Yes, we support efforts to add instruction in industrial arts and home economics to the Jr. High educational program.

_____ No, we do not support efforts to add instruction in industrial arts and home economics to the Jr. High educational program.

APPENDIX K

INTEREST QUESTIONNAIRE

SECTION I

A. How much do you think you would enjoy taking pictures with a camera if you could develop the pictures yourself?

B. How much do you think you would enjoy operating printing machines such as the school duplicating machine?

C. How much do you think you would like to make scale drawings?

D. How much do you think you would enjoy making pictures (posters) using the silk screening technique that was described to you?

E. How much do you think you would enjoy putting together the various sections of a good poster to advertise a school play or a school dance? (The various sections mentioned could refer to a picture or two, some large lettering and some small printing.)

SECTION II

A. How much interest do you feel you would have in studying how a lawn mower engine produces the power to cut grass?

B. How much interest do you think you would have in experimenting with gears, pulleys, levers, wheels, axles, etc.?

C. How much would you enjoy learning about hydraulic systems? (Hydraulic brakes - hydraulic jacks?)

D. You have often heard about energy, work, and power. How much do you think you would enjoy studying such topics?

E. Have you ever thought about the mechanical control devices found in your home and/or on your farm? How much do you think you would enjoy studying about such things?

SECTION III

A. How much do you think you would enjoy studying about simple electrical circuits?

B. How much do you think you would enjoy fixing small electrical appliances such as toasters, hair dryers, vacuum cleaners, etc.?

C. How much do you think you would enjoy learning how to test and fix a radio and/or a television set?

D. How much do you think you would enjoy working on a simple air conditioning unit?

E. How much interest do you think you have in stereo systems, tape recorders, speakers, etc.?

SECTION IV

A. How much do you think you would enjoy studying about the quality color, and overall suitability of particular articles of clothing?

B. How much do you think you would enjoy studying about how a person's life style is related to the clothes he wears and the foods he eats?

C. How much interest do you think you would have in studying such things as:

1) the relationship between the foods we eat and our general health?
2) the methods of preparing and serving a variety of foods?
3) family food choices (choices are probably based on availability, personal liking or disliking of the food and cost)?

D. How much interest do you think you would have in studying about the growth and development of children? For example, what needs children have at different ages. (Needs such as the need for food, clothing, friendship, love, and a feeling of security.)

E. It is sometimes said that making decisions becomes more difficult as the number of choices increases. How much interest do you think you would have in studying about making choices that affect your getting along in your family or community? (The things to consider might include your manner of speaking to people, your clothes, your attitude towards your school work and your jobs at home.)

Province of Manitoba

APPENDIX L

Inter-departmental memo

To:

Dr. L. Orlikow
Deputy Minister of Education
250 - Legislative Building

Date 76 01 16

JAN 26 1976

From R. W. Dalton
Chairman
Public Schools Finance Board
506 - R.F.B.

Subject: Re: PEMBINA VALLEY MOBILE VOCATIONAL UNITS

The Building Projects Committee made a favourable recommendation to the Finance Board with respect to these units.

The Finance Board is now in the process of obtaining the detailed estimated capital costs including all ancillary costs which the Finance Board may be expected to support.

When we have these final figures the matter will be brought before the Finance Board for its consideration.

R. W. Dalton

RWD:dg
c.c. Mr. A. E. Gray

FROM LIONEL ORLIKOW

MANITOBA

APPENDIX M

MINISTER OF EDUCATION

WINNIPEG
R3C 0V8

February 3, 1976

Mr. C. B. Arbuckle
Secretary-Treasurer
The Pembina Valley School Division No. 27
Box 459
Manitou, Manitoba
ROG 1GO

Dear Sir:

This is to advise that your school division is permitted to purchase four mobile units, in order to provide for programs in Industrial Arts and Home Economics, at centers in the Pembina Valley School Division No. 27 and The Tiger Hills School Division No. 29. Total maximum support to be provided under the Foundation Program for the purchase of these units, is limited to $252,829.00.

Yours sincerely,

Ben Hanuschak

cc: Tiger Hills School
Division No. 29