PROFESSIONAL IMPROVEMENT NEEDS OF VOCATIONAL VEHICLE SERVICE INSTRUCTORS AT WISCONSIN POST SECONDARY SCHOOLS

By

THOMAS DAVID KAPUSTA

Bachelor of Arts
University of Wisconsin-Milwaukee
Milwaukee, Wisconsin
1977

Master of Science
University of Wisconsin-Stout
Menomonie, Wisconsin
1979

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
July, 1984

PROFESSIONAL IMPROVEMENT NEEDS OF VOCATIONAL VEHICLE SERVICE INSTRUCTORS AT WISCONSIN POST-SECONDARY SCHOOLS

Thesis Approved:

Clyde B. Knight
Thesis Adviser

Erwin W. Dugger

Waynne B. James

Kenneth St. Clair

Norman N. Durham
Dean of the Graduate College

ACKNOWLEDGMENTS

The writer is very grateful to the many individuals who assisted him in this study. Special recognition is given to my family and to the most beautiful part of my life, my dearest wife, Sue, and my children Carolyn and Adam.

A very special thanks is extended to Dr.Clyde B. Knight, Committee Chairman. Acknowledgment is also made of the assistance and support of the doctoral committee, Dr. Cecil Dugger, Dr. Waynne B. James, and Dr. Ken St. Clair.

To friends and colleagues who provided encouragement, I am very thankful.

TABLE OF CONTENTS

LIST OF TABLES

FIGURE

CHAPTER I

INTRODUCTION

Today's transportation system has developed into a complex and diverse means of mobility. Vehicles in the modern marketplace are so different in design, engineering, construction, and servicing that they are linked only by time and name to their predecessors.

New searches for fuel efficiency, increased safety features, lower emission levels, and service simplicity have brought about an enormous impact on the transportation industry. Today's roads are being traveled with vehicles fitted with electronic devices, safeguards, and landmark sophistication. The result is a technology never seen before, which has fueled a knowledge explosion leading to many innovations.

These transportation advances have brought new products and different service procedures which require new and changing hands-on skills. At the same time, vocational vehicle service instructors need to keep pace with the changing work skills critical to occupational performance.

> The rapid development in the technology of all occupational fields requires that educators continue to get experience designed to keep them occupationally competent. If the teacher is to plan and direct instruction which will prepare prospective employees to cope with current and future work situations, he or she must be aware of and have some skills in the use of computerized processes, new tools and equipment, and new materials used to the more advanced segment of the occupation (7, p. 76).

In the accelerated expansion of the transportation industry, vocational vehicle service instructors may find some of their cognitive and pyschomotor skills somewhat challenged. Vocational vehicle service instructors may feel a direct need to acquire on-going professional improvement in the form of: (1) hands-on techniques, or (2) work environment experience.

Professional improvement for vocational teachers is also imperative to the instructional process. As the world of work changes, the developmental needs of vocational instructors to maintain their professionalism will also change.

> Professionalism is a state of mind, not a reality. Neither statute nor regulation, neither code nor shibboleth will make a teacher professional. If we are to pursue the cult of excellence, we will need a degree of dedication, an expenditure of energy and intellect, the like to which we have only the faintest notion at this time (6, pp. 267-268).

Statement of the Problem

The increasing and rapid change in the field of vehicle servicing has created a need for post-secondary vocational vehicle service instructors to up-date themselves in the form of professional improvement. The problem was to identify the specific professional improvement needs of vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin.

Purpose of the Study

The purpose of this study was to identify the professional improvement needs for vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin and to determine what they

were willing to do to meet their professional needs. This study was formulated on the basis that identifying the professional improvement needs would provide useful information for:

1. Vocational vehicle service instructors,
2. Vocational administrators,
3. Institutes of higher learning, and
4. State boards of vocational education.

Definition of Terms

For the purpose of this study, the following definitions of terms were used.

> Post-Secondary: An instructional program designed for students who have completed high school and graduation requirements; included technical-vocational, junior college, and two-year university programs as well as regular college and university curricula (5, p. 307).

Professional Improvement: The enhancement of the quality of knowledge and skills necessary to facilitate better job performance.

Vocational Vehicle Service Instructors: Personnel organized in an effort to provide the knowledge and skills required for an occupation in the area of service to automobiles, mopeds, motorcycles, trucks, recreational vehicles, and small engines. Included were instructors in vehicle service programs of the following styles: (1) certificate, (2) one-year diploma, (3) two-year diploma, and (4) associate degree.

This group consisted of auto-body service, auto mechanic service, diesel service, and small engine service instructors.

Scope and Limitations of the Study

This study had the following scope:

1. The study was limited to identifying the professional improvement needs of vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin.

2. The study was based on the latest data available as of June, 1981 from the Wisconsin Board of Vocational, Technical, and Adult Education.

3. This study was limited to vocational vehicle service instructors that taught courses under the following program titles:

a. Auto-Body,

b. Automotive Mechanic,

c. Auto-Parts Specialist,

d. Automotive Servicing,

e. Automotive Servicing Mechanic,

f. Automotive Specialities,

g. Automotive Technician,

h. Combustion Engine,

i. Diesel Equipment Mechanic,

j. Diesel Equipment Servicing,

k. Industrial Diesel Mechanic,

l. Industrial Truck Mechanic,

m. Motorcycle Mechanic,

n. Recreational Equipment Vehicle Specialist,

o. Small Engine and Chassis Mechanic Specialist,

p. Small Engine Servicing,

q. Upholstery and Auto Trim.

4. This study was limited to only vocational vehicle service instructors teaching in a full-time capacity.

Assumptions

It was assumed that the vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin would respond in the most objective manner possible in evaluating their own professional needs.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose and intention of this study was to identify the professional improvement needs for vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin. In order to gain an insight into the proposed area of study, a review of the existing literature was considered necessary. This chapter presents a review of published and unpublished materials relating to the problem referred to in Chapter I. For the purpose of this study, the following areas were reviewed: (1) an overview of professional improvement needs, (2) roads to professional improvement, (3) methods of professional improvement for vocational educators, and (4) professional improvement for vocational vehicle service personnel.

An Overview of Professional Improvement Needs

The industrial sector is in a constant state of change. Changes in the industrial sector create a ripple effect through all forms of business and industry (11, 12). In this state of newness, innovation, and change, technology has led the pace with new demands.

As business and industry are retooling, so are the needs of man retooling, for one's existence in the world of work, one must continue to learn. The lack or neglect of continued learning leads to

frustration and boredom. In fact, learning cannot be avoided--it cannot be turned off, it is a life-time process, according to Bush (3).

The whole function of learning has gone through a renovation. As learning styles change, so do the skills that go along with them. Willers (30), in his review of the implication of skills stated:

> Skills, therefore, have lost their property of eternality and have assumed the quality of momentariness. Skills come and go, almost with the twinkling of an eye. We are only too familiar with the rapid obsolescence of many skills once thought to be enduringly useful. But there may be some question as to whether or not this realization has actually affected the time-worn interests of many educators who retain in the curricula, and in their own teaching styles, outdated concepts and methods. Also skills that heretofore were never needed together in one place at one time are now often required, at least temporarily, of a single person attacking a new problem or seeking a new goal (p. 18).

Changes in learning and new skills are nothing new to vocational educators. Teaching occupational skills demands the need for current information. Critical to vocational education programs as the number one requirement and qualification is the mastery of skill and knowledge according to Prosser (20). Prosser thought that in order to meet the needs of students in occupational training, the instructors need to have a good foundation of occupational skills.

Educators need to be continually involved in new and significant objectives. Lindsey (6) presented the following list derived from statements of qualifications.

> The individual:
> Possesses a body of specialized skills and knowledge related to and essential for the performance of his function.
>
> Is able to make rational judgment and to take appropriate action within the scope of his activities, and is responsible for the consequences of his judgments and action.

> Places primary emphasis upon his service to society rather than upon his personal gain.
>
> Actively participates with his colleagues in developing and enforcing standards fundamental to continuous improvement of his profession and abides by those standards in his own practice.
>
> Is engaged in a continuing search for new knowledge and skill (p. 253).

Roads to Professional Improvement

The needs of professional educators are many and varied. A prominent theme that appears to a large extent in the literature is the need for personal involvement in the learning process (1, 9, 18).

This idea of personal involvement in relation to professional improvement is further reinforced with the need for an assessment. Womer (29, p. 2) places assessment in perspective, "First, assessment is one process of gathering information; second, the general purpose of assessment is to use the information that it generates in improved educational decision making."

Other areas of research support this same theme with very strong overtones. In support, Browder, Atkins, and Kaya (2, p. 16) state, "The educator must take an inventory of his system or parts of his system with its on-going educational programs."

The planning and development of learning programs needs to involve people who are directly affected for effective results. McComas (18) alluded to the important needs for this personal involvement.

> Systems should seek input from those being developed. Greater skill and expertise are needed in securing input from personnel as to what their technical and professional needs are. The old approach of making an educational diagnosis and presenting a prescription in the absence of the person for whom it is prescribed just won't work very well.

> A personnel development system in vocational and technical education should afford an opportunity for vocational educators, supervisors, administrators, and teacher educators to gain expertise in helping others in problem identification and the setting of priorities. There is considerable doubt that in-service education efforts will be successful unless those 'being developed' have some part in providing input and have some control over the direction they are going (p. 108).

Not only is it imperative to involve educators in professional improvement ideas, but it is also necessary to identify sources of training (9). Professional improvement needs to include an awareness of the sources of training. According to James (9), identifying the existing training sources and those that need to exist, plays a major role in identifying the needs of professional improvement for vocational educators. Anderson (1) in his research demonstrated that teachers are genuinely most interested in those activities which are perceived as helping them to perform more effectively.

Methods of Professional Improvement for Vocational Educators

The review of literature lends strong support for utilizing in-service education as a method of professional improvement. The major goal of in-service education at most institutions is to help teachers in specific educational areas, usually of a cognitive nature (21). On the other hand, few institutions considered planned work experience or technical updating as a part of an in-service educational program. According to Roehrich (21, p. 4), "There have been no national standards for guidelines for developing criteria to determine the need for and frequency of technical up-dating for instructors."

In many cases it was found that technical up-dating was rarely

required or urged. A numerous amount of upgrading activities focus on pedagogical, administrative, or supervisory skills translating into university credits (21).

The literature contains many sources of information that support the idea of planned occupational experience as part of an in-service function for vocational educators. Hill (7) described one assumption that is needed in the upgrading of vocational educators.

> It is imperative that vocational educators continue to improve their performance and to keep up-to-date in: (a) the discipline(s) which provide the subject matter, the basic knowledge for an occupation, (b) the occupational field which is the source of the skills, procedures, and knowledge for occupational education, and (c) new educational processes and methods derived from current research and experimentation (p. 75).

Sexton (22) referred to Hill reinforcing the need for continual occupational experience.

> Hill further stresses that keeping abreast of knowledge of the field does not insure an understanding of the practical application of this knowledge in employment situations. The educator must have the ability to use and understand modern practical methods, organizational structure of business, and utilization of equipment which is gained in employment situations (p. 13).

Sexton (22) and Hill (7) are further reinforced by other research findings. Studebaker and Rumpf (26) pointed out that adequate training in occupational skills is a necessary part of upgrading personnel. Larson (14) related the fact that vocational instructors at the grass roots level are requesting an opportunity for up-grading. In the research report compiled by Larson, 216 respondents (93 percent) expressed an interest in attending up-dating institutes. Knoll (13) also supports this theme by relating the idea that work experience in the field of work is a very effective means of in-service training and it is a method that should be implemented and encouraged. Miller and

Gillie (19) also provided a similar observation, "Teachers must keep current their knowledge of both scientific changes and changes in the techniques, procedures, materials, apparatus, equipment applications and special service in their occupational specialities"(p. 21).

A further insight in the literature focuses on the responsibility for professional improvement. Sexton (22) referred to this point in the following manner:

> If one feels that teaching is truly a profession, then the code of ethics of such a profession would specify that a person in the profession has the obligation to continue academic pursuits and be cognizant of change. This places the responsibility for up-dating on the shoulders of the teacher. However, it is virtually impossible for each teacher to design, develop, and implement every phase necessary for his/her continuous professional growth without support from many sources (p. 117).

Further evidence is found by Silvius and Ford (23) as they compiled the responsibilities of an industrial education teacher:

a. Participating in industrial-sponsored training courses.
b. Frequently visiting industrial shops, laboratories, and other appropriate facilities.
c. Taking advanced technical courses at the university level.
d. Attending pertinent conventions, meetings, seminars, and in-service conferences.
e. Belonging to and participating in professional organizations.
f. Obtaining employment in industry during the summer months.
g. Reading technical journals and other appropriate literature.
h. Applying for and studying under grants such as provided by the National Science Foundation.
i. Experimenting and practicing with an application of technical developments in home, school shop, or laboratory (p. 67).

Silvius and Ford (23) also provided some information on what specific policies, practices, or programs a school system could establish to help keep industrial education teachers competent. They state that a school system should:

a. Provide funds to help underwrite the cost of teachers' attendance at conventions and meetings outside of the school system.

b. Give salary recognition for industrial experience.

c. Conduct in-service workshops, conferences, seminars, and other meetings.

d. Provide released time for teachers to gain industrial experiences.

e. Provide released time for teachers to make industrial visitations.

f. Give salary recognition for increased competency.

g. Structure the teaching situation so that teachers are encouraged to maintain their own competency (p. 67-68).

Professional Improvement for Vocational Vehicle Service Personnel

Educators involved in the teaching of vehicle servicing have found an enormous number of ways of staying abreast of their respective technological fields. The style, frequency, place and time of occupational updating varies from instructor to instructor. Also, the specific need for continued professional improvement is just as wide and varied (28). The quest for professionalism among vocational vehicle service personnel exhibits a high degree of independent activities.

Some of the research that has been published identifies some of the various categories and methods of professional development (10, 16, 21, and 23). Literature portrays the state of the art of technical updating for post-secondary vocational vehicle service instructors in the following manner:

a. Workshops at teacher education institutions,

b. Industry and business sponsored workshops,

c. Workshops sponsored by technical societies and labor unions,

d. State Department of Education sponsored workshops,

e. Work experience programs in business and industry,

f. Formal education,

g. Trade fairs,

h. Conventions (24).

Summary

Related literature and research supported the need for identifying the professional improvement needs of vocational vehicle educators. The work world of these occupations and their respective training is changing. The need for strong professional academic preparation by up-to-date vocational vehicle service instructors will continue to exist. Professional improvement plays a major role in the educational strategy today and tomorrow. Edelfelt (6) provided a nice summation:

> A career in teaching must offer different levels of challenge, assignment, responsibility and reward, depending on the training, aspiration, competence, commitment, and style of individual teachers; and there must be enough flexibility and variety in a teaching career to enable teachers to remain vigorous, alert, and vital (pp. 265-266).

CHAPTER III

METHODOLOGY

The purpose of this study was to identify the professional improvement needs for vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin. To fulfill the purpose of this study, it was necessary to accomplish the following steps: (1) research and review of literature to identify what has been done and what has been utilized in the area of professional improvement for vocational vehicle service instructors, (2) develop a questionnaire response form, (3) sample and collect the data, (4) analyze the data, and (5) write a summary and recommendation of the findings.

Research Questions

The following research questions were developed for this study to provide research information and data as to the professional improvement needs of vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin.

1. What is the perceived interest in professional improvement by vocational vehicle service instructors?

2. What activities would help vocational vehicle instructors to stay abreast of their occupational field?

3. What methods of having the school system aid in professional improvements were favored by vocational vehicle service instructors?

4. What methods of delivery of instruction were favored to meet the perceived professional improvement needs of vocational vehicle service instructors?

5. What other methods would be of interest to vocational vehicle service instructors in their professional improvements?

6. What methods have been utilized by vocational vehicle service instructors to aid professional improvements?

Development of the Questionnaire

A questionnaire was developed to measure the professional improvement needs of vocational vehicle service instructors. The style of the questionnaire used to collect the data was a self-reporting one.

The questionnaire was developed as a result of insights from the review of literature. Silvius and Ford (23) had compiled suggestions and/or recommendations for professional improvement. These improvements included:

1. Maintaining technical competency for industrial educators.

2. Policies, practices, or programs that could be established by school systems to help industrial educators remain up-to-date.

Those findings by Silvius and Ford (23) were greatly modified by the author into a 25-item questionnaire. After it had been reviewed by faculty members, fellow graduate students, and committee consultants, the questionnaire was further refined (see Appendix A for a copy of the final questionnaire).

The completed questionnaire consisted of three parts: (1) demographic data, (2) a Likert-type scale consisting of 23 items, and (3) two-open-ended informational questions.

Pilot Study

Research requires input from those involved. For the purpose of this study, a questionnaire (see Appendix A), along with a questionnaire evaluation (see Appendix B), was sent to a representative sampling consisting of 16 instructors. The representative sampling consisted of two instructors of auto body, nine instructors of auto mechanics, four instructors of diesel, and one instructor of small engines.

In this pilot study, 16 of the 16 responded (100 percent) to both the questionnaire evaluation and the questionnaire.

The questionnaire evaluation was used in order to: (1) determine the overall impression of the questionnaire, (2) determine the length of the questionnaire, (3) determine the clarity of the statements, (4) determine the style of the questionnaire, (5) determine the degree to which the questionnaire revealed the professional improvement needs of vocational vehicle service instructors, and (6) determine other suggestions for improving the questionnaire. From these final suggestions the questionnaire was reworked into the final instrument.

Definition of the Population

The selected participants for this study consisted of all vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin. Only those teachers who were in full-time capacity and in one of the following vocational vehicle servicing programs were utilized:

a. Auto-Body,

b. Automotive Mechanic,

c. Auto Parts Specialist,

d. Automotive Servicing,

e. Automotive Servicing Mechanic,

f. Automotive Specialities,

g. Automotive Technician,

h. Combustion Engine,

i. Diesel Equipment Mechanic,

j. Diesel Equipment Servicing,

k. Industrial Diesel Mechanic,

1. Industrial Truck Mechanic,

m. Motorcycle Mechanic,

n. Recreational Equipment Vehicle Specialist,

o. Small Engine and Chassis Mechanic Specialist,

p. Small Engine Servicing, and

q. Upholstery and Auto Trim.

From these 17 instructional programs, the instructors were classified into four instructional groups. The respondent's answers to the questionnaire were distributed into one of the four instructional groups as follows:

1. Auto Body Service
   a. Auto Body
2. Auto Mechanics Service
   b. Automotive
   c. Auto Parts Specialist
   d. Automotive Servicing
   e. Automotive Servicing Mechanic
   f. Automotive Specialities
   h. Automotive Technician

3. Diesel Service

    i. Combustion Engine

    j. Diesel Equipment Mechanic

    k. Industrial Truck Mechanic

    l. Industrial Diesel Mechanic

4. Small Engine Service

    m. Motorcycle Mechanic

    n. Recreational Equipment Vehicle Specialist

    o. Small Engine and Chassis Mechanic

    p. Small Engine Servicing

These programs consisted of the following types: (1) certificate, (2) one-year diploma, (3) two-year diploma, and (4) associate degree.

The names of the participants were furnished by the Wisconsin Board of Vocational, Technical and Adult Education. The vocational-technical centers that were utilized in this study are listed below in alphabetical order:

1. Blackhawk Vocational and Technical Institute,
2. District 1 Technical Institute,
3. Fox Valley Technical Institute,
4. Gateway Technical Institute,
5. Lakeshore Technical,
6. Madison Area Technical College,
7. Mid-State Technical Institute,
8. Milwaukee Area Technical College,
9. Moraine Park Technical Institute,
10. Nicolet College and Technical Institute,
11. North Central Vocational and Technical Institute,
12. Northeast Technical Institute,

13. Southwest Wisconsin Vocational and Technical Institute,
14. Waukesha Wisconsin Technical Institute,
15. Western Wisconsin Technical Institute, and
16. Wisconsin Indianhead Technical Institute.

Figure 1 displays the geographic area from which the respondents were drawn.

Administering the Questions

The revised questionnaires were mailed to the vocational vehicle service instructors with a cover letter (see Appendix C). The accompanying letter explained what the study was investigating and gave instructions for filling out the questionnaire. The questionnaire was a postage-paid, self-addressed mailer to facilitate and encourage a quick return. The initial mailing occurred on August 28, 1981. A follow-up letter (see Appendix D) was mailed on October 7, 1981.

Analysis Procedures

The questionnaires yielded demographic data in the following areas:

1. Job title,
2. Age,
3. Number of years in present position,
4. Number of years of occupational experience, and
5. Educational level.

The tabulation of data collected on numbers two, three, four, and five from the above used descriptive statistics consisting of frequency and percentages.

Items one through 23 on the questionnaire used a Likert-type scale

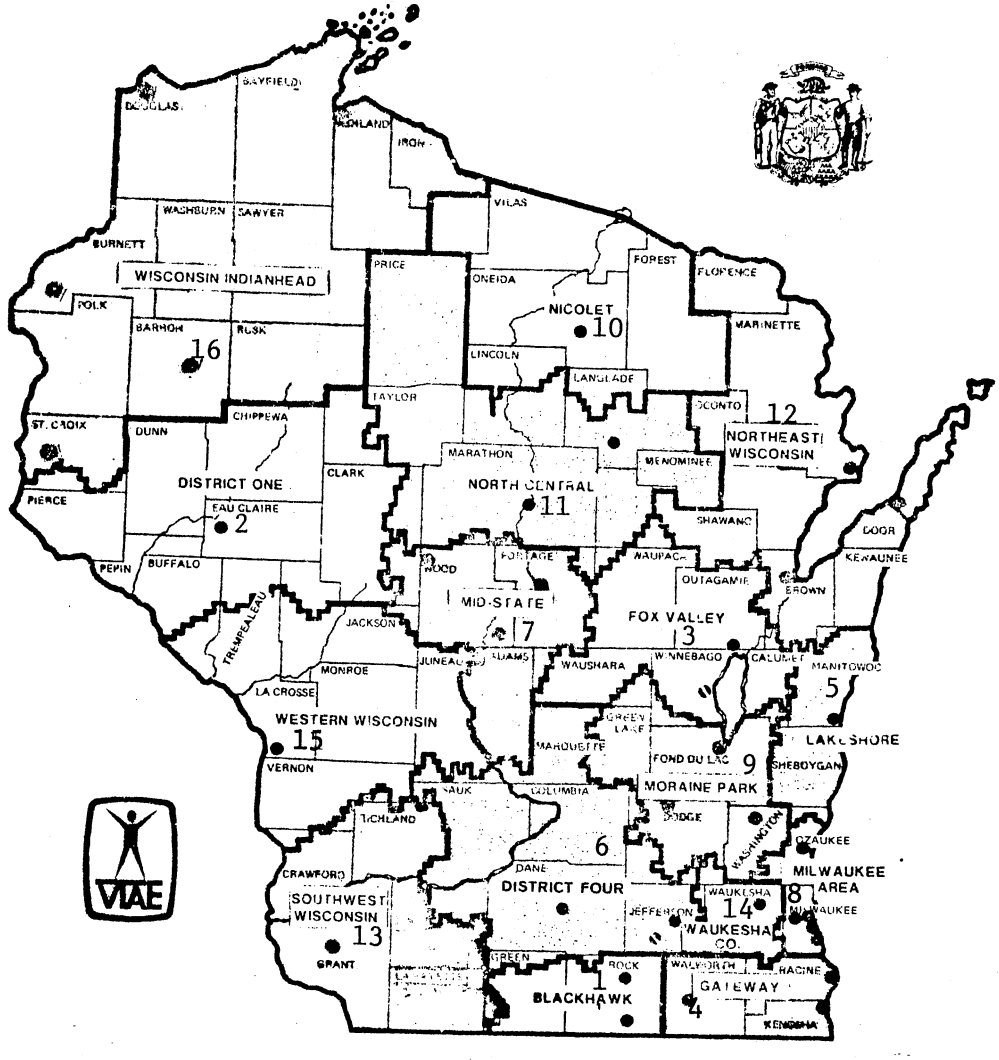

Figure 1. Vocational, Technical and Adult Education Districts and Full-Time Campuses

Legend:

1. Blackhawk VTAE
2. District One VTAE
3. Fox Valley VTAE
4. Gateway VTAE
5. Lakeshore VTAE
6. Madison VTAE
7. Mid-State VTAE
8. Milwaukee VTAE
9. Moraine-Park VTAE
10. Nicolet VTAE
11. North Central VTAE
12. Northeast VTAE
13. Southwest VTAE
14. Waukesha VTAE
15. Western Wisconsin VTAE
16. Wisconsin Indianhead VTAE

offering response choices for each of the 23 items. The scale used for each item was as follows: "SA" (Strongly Agree); "A" (Agree); "U" (Undecided); "D" (Disagree); "SD" (Strongly Disagree). A five-point rating scale was used to weigh the response. The scoring of those scores as established by the questionnaire were: (5.00) Strongly Agree; (4.00) Agree; (3.00) Undecided; (2.00) Disagree; and (1.00) Strongly Disagree. A mean score of 3.75 or above was considered by the author as an indication of agreement.

The data that were collected was submitted to the Computer Center at Oklahoma State University. The Statistical Analysis System (SAS) was used to compute the data in this research. Data from the 23 questions items were tabulated using descriptive statistics consisting of, (1) Frequency, (2) Percentage, (3) Total Frequency, (4) Total Mean, and (5) Grand Mean.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to identify the professional improvement needs for vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin. The purpose of this chapter is to present and analyze the statistical data from the collected questionnaires. For the purpose of the study, the following areas were reviewed: (1) respondents, (2) demographic data, and (3) analysis of respondents' data.

Respondents

On August 28, 1981, the initial mailing of 200 questionnaires were sent to vocational vehicle service instructors in the state of Wisconsin. A follow-up mailing occurred October 7, 1981. A total of 160 questionnaires were returned out of 200. The results are shown in Table I.

Demographic Data

In Tables II through VI, demographic information on the respondents was compiled. Table II reports the number of instructors in each of the four instructional groups. The largest instructional group from this area was the auto-mechanics group.

Contained in Table III are the compiled ages of the study's instructional groups. Respondents were typically in the 31 to 45 age range.

TABLE I

DISTRIBUTION OF RESPONDENTS BY QUESTIONNAIRE MAILING

Total Mailed	Initial Mailing	Follow-up Mailing	Total Returned	Total Percentage
200	125	35	160	80%

TABLE II

DISTRIBUTION OF RESPONDENTS BY JOB TITLE

Job Titles	N	%
Auto Body Instructor	29	18
Auto Mechanic Instructor	86	54
Diesel Instructor	25	16
Small Engine Instructor	20	12
Total	160	100

TABLE III

DISTRIBUTION OF RESPONDENTS BY AGE

Age in Years	N	%
26-30	15	9.4
31-35	22	13.7
36-40	45	28.2
41-45	22	13.7
46-50	15	9.4
51-55	22	13.7
56-60	11	6.9
61-65	7	4.4
66-70	1	0.6
Not reported	0	0.0
Total	160	100.0

The largest age group was the 36 to 40 year age with 45 (28.2 percent) of the respondents fitting this age category. The vocational vehicle service instructors had substantial concentrations of age groups in the 31 to 35 (13.7 percent), 41 to 45 (13.7 percent), and 51 to 55 (13.7 percent) ranges.

Illustrated in Table IV are the respondents' years in their present teaching positions. The reported range of years ran from less than a year to over 20 years. The largest category of the respondents had been in their respective position from five to nine years (40.6 percent).

Displayed in Table V is the distribution of the respondents' years of trade experience. All of the respondents had a substantial amount of work experience that was brought to the educational setting.

Contained in Table VI are data on the variety of educational levels attained by the respondents. The respondents had 37 as college graduates (23.1 percent) and 42 with graduate degrees (26.3 percent).

Analysis of Respondents' Data

The results of the questionnaire are presented in five sections representing the six thesis research questions this dissertation is attempting to answer. They follow in this order and will be reported in Chapter V as listed here.

Section 1. What is the perceived interest in professional improvement by vocational vehicle service instructors?

Section 2. What activities would help vocational vehicle instructors to stay abreast of their occupational field?

Section 3. What methods of having the school system aid in professional improvements were favored by vocational vehicle service instructors?

TABLE IV

DISTRIBUTION OF RESPONDENTS BY
YEARS IN PRESENT POSITION

Years in Present Position	N	%
0 - 4	24	15.0
5 - 9	65	40.6
10 - 14	47	29.4
15 - 19	13	8.1
20 plus	10	6.3
Not Indicated	1	0.6
Total	160	100.0

TABLE V

DISTRIBUTION OF RESPONDENTS BY
YEARS OF TRADE EXPERIENCE

Years of Trade Experience	N	%
0 - 4	19	11.9
5 - 9	48	30.0
10 - 14	31	19.4
15 - 19	12	7.5
20 - 24	24	15.0
25 - 29	9	5.6
30 plus	15	9.4
Not indicated	2	1.2
Total	160	100.0

TABLE VI

DISTRIBUTION OF RESPONDENTS BY
EDUCATIONAL LEVEL

Educational Level	N	%
High School	15	9.4
Some College	65	40.6
College Graduate	37	23.1
Graduate Degree	42	26.3
Not Reported	1	0.6
Totals	160	100.0

Section 4. What methods of delivery of instruction were favored to meet the perceived professional improvement needs of vocational vehicle service instructors?

Section 5. This section consisted of two open-ended information questions. What other methods would be of interest to vocational vehicle service instructors in their professional improvements? What methods have been utilized by vocational vehicle service instructors to aid professional improvements.

Section 1

The survey questionnaire asked the study participants to indicate professional improvement methods. As shown in Table VII, participating in industrial-sponsored training courses was perceived to be of the highest priority for professional improvement. In this section, there was an indication of agreement to this item with a 4.65 grand mean for all four instructional groups and no responses to the "strongly disagree" category.

Obtaining related employment in industry during the summer months, Table VIII, was viewed positively as a means of remaining current by the auto body, auto mechanics, diesel, and small engine instructors. There was an indication of agreement on item number two with a grand mean of 4.10

Item number three is displayed in Table IX. Taking advanced technical courses at the university level was something perceived as important to professional improvement based on the individual's need. All of the respondents had developed a grand mean of 3.52.

In the area of visiting shops and other appropriate facilities,

TABLE VII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING PARTICIPATION IN INDUSTRIAL SPONSORED TRAINING COURSES BY INSTRUCTOR TYPES

Instructors	RESPONSES										Total	
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1			
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	20	68.97	9	31.03	0	0.00	0	0.00	0	0.00	29	4.69
Auto Mechanic Service	60	69.77	21	24.42	3	3.49	2	2.33	0	0.00	86	4.62
Diesel Service	18	72.00	7	28.00	0	0.00	0	0.00	0	0.00	25	4.72
Small Engine Service	13	65.00	7	35.00	0	0.00	0	0.00	0	0.00	20	4.65
Totals	111		44		3		2		0			

Grand Mean = 4.65

TABLE VIII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING OBTAINING RELATED EMPLOYMENT IN INDUSTRY DURING THE SUMMER MONTHS BY INSTRUCTOR TYPES

Instructors	RESPONES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	10	34.48	15	51.72	3	10.34	1	3.45	0	0.00	29	4.17
Auto Mechanic Service	36	41.86	33	38.37	11	12.79	4	4.65	2	2.33	86	4.13
Diesel Service	9	36.00	11	44.00	4	16.00	1	4.00	0	0.00	25	4.12
Small Engine Service	8	40.00	7	35.00	1	5.00	2	10.00	2	10.00	20	3.85
Totals	63		66		19		8		4			

Grand Mean = 4.10

TABLE IX

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING TAKING ADVANCED TECHNICAL COURSES AT THE UNIVERSITY LEVEL BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	6	20.69	12	41.38	7	24.14	4	13.79	0	0.00	29	3.69
Auto Mechanic Service	14	16.28	37	43.02	23	26.74	10	11.63	2	2.33	86	3.59
Diesel Service	2	8.00	13	52.00	3	12.00	5	20.00	2	8.00	25	3.32
Small Engine Service	4	20.00	7	35.00	2	10.00	3	15.00	4	20.00	20	3.20
Totals	26		69		35		22		8			

Grand Mean = 3.52

Table X, the majority of the respondents agreed to the importance of this item. The auto body instructors perceived the role shop visitations play in professional improvement as an important function with their responses yielding a total mean of 4.62.

Obtaining related employment as part of an in-service program, Table XI, produced some differences among the four instructional groups. The auto body, auto mechanic, and diesel instructors reported a varying amount of agreement with this question with a mean of 3.59 for auto body, 3.95 for auto mechanics, 3.76 for diesel instructors. Small engine personnel did not perceive this item to be of as great of an importance in the development of professional improvement with a mean of 3.15.

Each instructional group felt that applying for and studying under grants would be an item of uncertainity as a means of professional improvement (see Table XII). The auto body instructors responded with a mean of 3.45. The auto mechanic instructors had a mean of 3.33. However, the diesel service instructors provided a mean of 2.60, and the small engine instructors had a mean of 2.75, disagreeing as to the role item number six might play in professional improvement.

Shown in Table XIII is item number seven, which demonstrate some disagreement among the instructors as to the value of obtaining related employment as part of a regular teaching load. The instructional groups responded with a grand mean of 2.93 supporting their disagreement with this role in professional improvement.

Section 2

Contained in Table XIV is one of the perceived methods of staying abreast of one's occupational field. Attending pertinent trade seminars

TABLE X

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING VISITING SHOPS AND OTHER APPROPRIATE FACILITIES BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	18	62.07	11	37.93	0	0.00	0	0.00	0	0.00	29	4.62
Auto Mechanic Service	37	43.02	43	50.00	4	4.65	2	2.33	0	0.00	86	4.34
Diesel Service	7	28.00	17	68.00	1	4.00	0	0.00	0	0.00	25	4.24
Small Engine Service	10	50.00	7	35.00	2	10.00	0	0.00	1	5.00	20	4.25
Totals	72		78		7		2		1			

Grand Mean = 4.36

TABLE XI

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING OBTAINING RELATED EMPLOYMENT AS PART OF AN INSERVICE PROGRAM BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	7	24.14	8	37.59	9	31.03	5	17.24	0	0.00	29	3.59
Auto Mechanic Service	30	34.88	30	34.88	20	23.26	4	4.65	2	2.33	86	3.95
Diesel Service	5	20.00	12	48.00	5	20.00	3	12.00	0	0.00	25	3.76
Small Engine Service	5	25.00	3	15.00	4	20.00	6	30.00	2	10.00	20	3.15
Totals	47		53		38		18		4			

Grand Mean = 3.76

TABLE XII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING APPLYING FOR AND STUDY UNDER GRANTS BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	5	17.24	10	34.48	9	31.03	3	10.34	2	6.90	29	3.45
Auto Mechanic Service	11	12.79	36	41.86	12	13.95	24	27.91	3	3.49	86	3.33
Diesel Service	1	4.00	4	16.00	5	20.00	14	56.00	1	4.00	25	2.60
Small Engine Service	4	20.00	2	10.00	3	15.00	7	35.00	4	20.00	20	2.75
Totals	21		52		29		48		10			

Grand Mean = 3.17

TABLE XIII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING OBTAINING RELATED EMPLOYMENT AS PART OF YOUR REGULAR TEACHING LOAD BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	5	17.24	5	17.24	5	17.24	10	34.48	4	13.79	29	2.90
Auto Mechanic Service	14	16.28	27	31.40	8	9.30	27	31.40	10	11.63	86	3.09
Diesel Service	0	0.00	7	28.00	2	8.00	15	60.00	1	4.00	25	2.60
Small Engine Service	3	15.00	4	20.00	1	5.00	8	40.00	4	20.00	20	2.70
Totals	22		43		16		60		19			

Grand Mean = 2.93

TABLE XIV

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING ATTENDING PERTINENT TRADE SEMINARS BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	24	82.76	5	17.24	0	0.00	0	0.00	0	0.00	29	4.83
Auto Mechanic Service	63	73.26	23	26.74	0	0.00	0	0.00	0	0.00	86	4.73
Diesel Service	18	72.00	7	28.00	0	0.00	0	0.00	0	0.00	25	4.72
Small Engine Service	15	75.00	5	25.00	0	0.00	0	0.00	0	0.00	20	4.75
Totals	120		40		0		0		0			

Grand Mean = 4.75

as a method of staying abreast of one's occupational field. All four instructional groups expressed some agreement with this method in the development of professional improvement. There were no responses in the "undecided", "disagree", and "strongly disagree" areas.

Question number nine, Table XV, had a majority of the responses in the agreement area. Belonging to professional organizations was perceived to play a role in professional improvement of those four instructional groups with a grand mean of 4.04.

There was varying agreement attached to item number 10, Table XVI. The reading of technical journals and other appropriate literature had no responses in the "disagree", and "strongly disagree" section producing a grand mean of 4.56.

Attending in-service conferences, Table XVII, also had agreement by the four instructional groups. The grand mean was 4.28, with little discrepancy between the means of each of the respondent groups.

Section 3

In this section, the data of having the school system provide funds for the attendance of meetings outside of one's school system, produced an agreement from the vocational vehicle instructors. Item number 12, Table XVIII, contained the highest grand mean in this section at 4.55. There was agreement to this item as a potential method for remaining up-to-date.

Another item of agreement, and very closely matched in terms of the data was item number 13, Table XIX. The respondents perceived salary recognition for further occupational experience as a means of continued professional improvement.

TABLE XV

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING BELONGING TO PROFESSIONAL ORGANIZATIONS BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	11	37.93	14	48.28	2	6.90	2	6.90	0	0.00	29	4.17
Auto Mechanic Service	20	23.26	54	62.79	9	10.47	2	2.33	1	1.16	86	4.05
Diesel Service	4	16.00	15	60.00	4	16.00	2	8.00	0	0.00	25	3.84
Small Engine Service	7	35.00	9	45.00	3	15.00	1	5.00	0	0.00	20	4.10
Total	42		92		18		7		1			

Grand Mean = 4.04

TABLE XVI

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING READING TECHNICAL JOURNALS AND OTHER APPROPRIATE LITERATURE BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	22	75.86	7	24.14	0	0.00	0	0.00	0	0.00	29	4.76
Auto Mechanic Service	48	55.81	36	41.86	2	2.33	0	0.00	0	0.00	86	4.53
Diesel Service	12	48.00	13	52.00	0	0.00	0	0.00	0	0.00	25	4.48
Small Engine Service	11	55.00	8	40.00	1	5.00	0	0.00	0	0.00	20	4.50
Total	93		64		3		0		0			

Grand Mean = 4.56

TABLE XVII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING ATTENDING IN-SERVICE CONFERENCES BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	16	55.17	11	37.93	1	3.45	1	3.45	0	0.00	29	4.45
Auto Mechanic Service	27	31.40	51	59.30	6	6.98	2	2.33	0	0.00	86	4.20
Diesel Service	11	44.00	11	44.00	3	12.00	0	0.00	0	0.00	25	4.32
Small Engine Service	10	50.00	8	40.00	1	5.00	1	5.00	0	0.00	20	4.35
Total	64		81		11		4		0			

Grand Mean = 4.28

TABLE XVIII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING PROVIDING FUNDS TO HELP UNDERWRITE THE COST OF YOUR ATTENDANCE AT MEETINGS OUTSIDE OF YOUR SCHOOL SYSTEM BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	21	72.41	7	24.14	0	0.00	0	0.00	1	3.45	29	4.62
Auto Mechanic Service	58	67.44	23	26.74	4	4.65	1	1.16	0	0.00	86	4.60
Diesel Service	12	48.00	13	52.00	0	0.00	0	0.00	0	0.00	25	4.48
Small Engine Service	11	55.00	7	35.00	0	0.00	2	10.00	0	0.00	20	4.35
Total	102		50		4		3		1			

Grand Mean = 4.55

TABLE XIX

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING GIVING A SALARY RECOGNITION FOR FURTHER OCCUPATIONAL EXPERIENCE BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	20	68.97	5	17.24	2	6.90	1	3.45	1	3.45	29	4.45
Auto Mechanic Service	54	62.79	24	27.91	7	8.14	1	1.16	0	0.00	86	4.52
Diesel Service	11	44.00	10	40.00	3	12.00	1	4.00	0	0.00	25	4.24
Small Engine Service	15	75.00	2	10.00	3	15.00	0	0.00	0	0.00	20	4.60
Total	100		41		15		3		1			

Grand Mean = 4.47

Reported in Table XX is the respondents' agreement towards item 14. Conducting in-service technical workshops produced a grand mean of 4.25 indicating agreement towards this statement.

Item number 15, Table XXI, found only slight agreement. Providing released time for one to gain more occupational experience had a grand mean of 3.65. The auto mechanic instructional group was found spreading the Likert-type scale with a mean of 3.48.

A sabbatical as an opportunity for further occupational experience had agreement as a perceived method of professional improvement as shown in Table XXII. Of the four instructional groups, the small engine personnel had the lowest mean of 3.55 for this item.

Another statement which the respondents agreed to was item number 17 reported in Table XXIII. Released time for making industrial visits was rated favorably with a grand mean of 4.44. This item had no responses in the "strongly disagree" category.

Displayed in Table XXIV is the perceived professional improvement results on item number 18. Working out a salary schedule for summer employment for further occupational experience had agreement from the respondents. This item produced a grand mean of 3.89.

Section 4

Professional improvement in the form of regularly scheduled classes, Table XXV, indicated a good amount of indecision with a grand mean of 3.32. The small engine instructors had the lowest mean on this item at 3.15.

Specially scheduled classes as a way of receiving professional improvement yielded an indication of agreement as contained in Table XXVI.

TABLE XX

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING CONDUCTING IN-SERVICE TECHNICAL WORKSHOPS BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	13	44.83	15	51.72	1	3.45	0	0.00	0	0.00	29	4.41
Auto Mechanic Service	27	31.40	45	52.33	12	13.95	1	1.16	1	1.16	86	4.12
Diesel Service	11	44.00	12	48.00	2	8.00	0	0.00	0	0.00	25	4.36
Small Engine Service	11	55.00	7	35.00	2	10.00	0	0.00	0	0.00	20	4.45
Total	62		79		12		1		1			

Grand Mean = 4.25

TABLE XXI

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING PROVIDING RELEASED TIME FOR YOU TO GAIN MORE OCCUPATIONAL EXPERIENCE BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	13	44.83	8	27.59	2	6.90	5	17.24	1	3.45	29	3.93
Auto Mechanic Service	25	29.07	24	27.91	7	8.14	27	31.40	3	3.49	86	3.48
Diesel Service	8	32.00	8	32.00	5	20.00	4	16.00	0	0.00	25	3.80
Small Engine Service	9	45.00	4	20.00	2	10.00	4	20.00	1	5.00	20	3.80
Total	55		44		16		40		5			

Grand Mean = 3.65

TABLE XXII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING PROVIDING A SUBBATICAL OPPORTUNITY FOR YOU TO GAIN FURTHER OCCUPATIONAL EXPERIENCE BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	9	31.03	11	37.93	4	13.79	4	13.79	1	3.45	29	3.79
Auto Mechanic Service	36	41.86	33	38.37	11	12.79	4	4.65	2	2.33	86	4.13
Diesel Service	12	48.00	11	44.00	0	0.00	2	8.00	0	0.00	25	4.32
Small Engine Service	8	40.00	3	15.00	4	20.00	2	10.00	3	15.00	20	3,55
Total	65		58		19		12		3			

Grand Mean = 4.03

TABLE XXIII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING PROVIDING RELEASED TIME FOR YOU TO MAKE INDUSTRIAL VISITS BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	18	62.70	8	27.59	2	6.90	1	3.45	0	0.00	29	4.48
Auto Mechanic Service	45	52.33	32	37.21	7	8.14	2	2.33	0	0.00	86	4.40
Diesel Service	11	44.00	14	56.00	0	0.00	0	0.00	0	0.00	25	4.44
Small Engine Service	12	60.00	8	40.00	0	0.00	0	0.00	0	0.00	20	4.60
Total	86		62		9		3		0			

Grand Mean = 4.44

TABLE XXIV

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING WORKING OUT A SALARY SCHEDULE FOR SUMMER EMPLOYMENT FOR FURTHER OCCUPATIONAL EXPERIENCE BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	10	34.48	8	27.59	5	17.24	5	17.24	1	3.45	29	3.72
Auto Mechanic Service	35	40.70	26	30.23	13	15.12	8	9.30	4	4.65	86	3.93
Diesel Service	8	32.00	9	36.00	5	20.00	3	12.00	0	0.00	25	3.88
Small Engine Service	7	35.00	8	40.00	3	15.00	2	10.00	0	0.00	20	4.00
Total	60		51		26		18		5			

Grand Mean = 3.89

TABLE XXV

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING REGULARLY SCHEDULED CLASSES BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	4	13.79	14	48.28	2	6.90	8	27.59	1	3.45	29	3.41
Auto Mechanic Service	13	15.12	30	34.88	15	17.44	26	30.23	2	2.33	86	3.30
Diesel Service	5	20.00	6	24.00	10	40.00	4	16.00	0	0.00	25	3.48
Small Engine Service	3	15.00	4	20.00	6	30.00	7	35.00	0	0.00	20	3.15
Total	25		54		33		45		3			

Grand Mean = 3.32

TABLE XXVI

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING SPECIALLY SCHEDULES CLASSES BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	13	44.83	11	37.93	4	13.79	1	3.45	0	0.00	29	4.24
Auto Mechanic Service	28	32.56	44	51.16	8	9.30	5	5.81	1	1.16	86	4.08
Diesel Service	7	28.00	15	60.00	2	8.00	0	0.00	1	4.00	25	4.08
Small Engine Service	10	50.00	9	45.00	0	0.00	1	5.00	0	0.00	20	4.40
Totals	58		79		14		7		2			

Grand Mean = 4.14

The grand mean was 4.14 for this item.

There was agreement to item number 31, Table XVII. This grand mean was 4.49 with the small engine instructors responding with a mean of 4.80. Hands-on-workshops were perceived as a very good method of continued professional improvement.

Item 22 yielded a difference in the way the small engine instructional group responded to this item as shown in Table XXVIII. Individualized instruction had a grand mean of 3.41. The small engine personnel disagreed with this item with a mean of 2.76.

Independent study as a means of professional improvement had a mean of 3.35, Table XXIX. Yet, there was an important similarity in the way this item was answered. All of the respondents yielded a grand mean of 3.24.

Section 5

As shown in Table XXX, is the distribution of responses to methods of professional development. The number one method mentioned in this area was the use of factory-sponsored training programs. A total of 52 instructors used this method to facilitate professional development.

Illustrated in Table XXXI is the distribution of respondents' interest to interested methods of professional development. The most frequently suggested idea was to have in-depth hands-on classes in the new technology areas. Another very important idea was to have a cooperative work setting with industry during the summer.

TABLE XXVII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING HANDS-ON WORKSHOPS BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	17	58.62	12	41.38	0	0.00	0	0.00	0	0.00	29	4.59
Auto Mechanic Service	44	51.16	34	39.53	6	6.98	1	1.16	1	1.16	86	4.38
Diesel Service	15	60.00	9	36.00	1	4.00	0	0.00	0	0.00	25	4.56
Small Engine Service	16	80.00	4	20.00	0	0.00	0	0.00	0	0.00	20	4.80
Total	92		59		7		1		1			

Grand Mean = 4.49

TABLE XXVIII

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING INDIVIDUALIZED INSTRUCTION BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	4	13.79	15	51.72	4	13.79	4	13.79	2	6.90	29	3.52
Auto Mechanic Service	14	16.28	30	34.88	24	27.91	16	18.60	2	2.33	86	3.44
Diesel Service	7	28.00	10	40.00	5	20.00	1	4.00	2	8.00	25	3.76
Small Engine Service	3	15.00	4	20.00	1	5.00	9	45.00	3	15.00	20	2.75
Total	28		59		34		30		9			

Grand Mean = 3.41

TABLE XXIX

RESPONSES TO PROFESSIONAL IMPROVEMENT STATEMENT CONCERNING INDEPENDENT STUDY BY INSTRUCTOR TYPES

Instructors	RESPONSES											
	Strongly Agree 5		Agree 4		Undecided 3		Disagree 2		Strongly Disagree 1		Total	
	N	%	N	%	N	%	N	%	N	%	N	Mean
Auto Body Service	6	20.69	12	41.38	3	10.34	6	20.69	2	6.90	29	3.48
Auto Mechanic Service	15	17.44	16	18.60	17	19.77	36	41.86	2	2.33	86	3.07
Diesel Service	4	16.00	12	48.00	6	24.00	2	8.00	1	4.00	25	3.64
Small Engine Service	5	25.00	4	20.00	3	15.00	6	30.00	2	10.00	20	3.20
Total	30		44		29		50		7			

Grand Mean = 3.24

TABLE XXX

DISTRIBUTION OF RESPONDENTS TO METHODS OF PROFESSIONAL DEVELOPMENT UTILIZED

Item Number: 24 Method	N
Factory sponsored training prgorams	52
Summer employment	29
Service/trade journals	28
College workshops	20
Part-time employment	18
Independent study	18
Summer workshops	17
Professional organization meetings	16
Vocational Technical Association (State VTAE) sponsored seminars	15
Industry visitations	15
Trade shows	15
Inservice programs dealing with the trade	6
Field trips to manufacturing plants	6
Live work in the shop	4
Review manufacturing films and booklets	4
Professional consulting work	4
Building and utilizing mock ups	3
Seminars in 2 - 3 hour duration	2
Student reports on current developments in the field	2

TABLE XXXI

DISTRIBUTION OF RESPONDENTS TO INTERESTED METHODS OF PROFESSIONAL DEVELOPMENT

Item Number: 25.

Methods	N
In-depth hands-on classes in the new technology areas	25
A cooperative work setting in industry during the summer	15
More state-wide workshops	11
More after market seminars	10
Further occupational experience recognized for salary reclassification	9
More information on teaching techniques	8
Released time to up-date curriculum areas	8
More articulation with other instructors in their respective instructional areas	8
A one-year sabbatical for more occupational experience due to the expanded technology	8
A greater number of hands-on workshops	7
More time allotted to visit with industry on a regular basis	7
More information on computers affecting our trade area	7
More appropriate in-service sessions	6
More information on class strategy and speech presentation	6
Time to up-date information relating to equipment and shop manuals	6
Time to tour manufacturing plants	5
Rotation of work assignments	4
Time to visit trade shows	4
An opportunity to consult with industry	1
Teacher exchange between schools	1
Time to attend manufacturing-sponsored training sessions	1
Time for a broader background in math and science	1
I would be willing to take classes to make me a better teacher if they applied. However, so many university classes do not apply and are quite inappropriate for my type of teaching.	1

CHAPTER V

SUMMARY, FINDINGS, AND RECOMMENDATIONS

Summary

The purpose of this study was to identify the professional improvement need for vocational vehicle service instructors at the post-secondary schools in the state of Wisconsin. This study was designed to provide an insight into the professional needs for vocational vehicle service instructors.

In order to accomplish this, six research questions were developed:

1. What is the perceived interest in professional improvement by vocational vehicle service instructors?

2. What activities would help vocational vehicle service instructors to stay abreast of their occupational field?

3. What methods of having the school system aid in professional improvements were favored by vocational vehicle service instructors?

4. What methods of delivery of instruction were favored to meet the perceived professional improvement needs of vocational vehicle service instructors?

5. What other methods would be of interest to vocational vehicle service instructors in their professional improvements?

6. What methods have been utilized by vocational vehicle instructors to aid professional improvements?

A 25-item questionnaire was developed to determine the professional improvement needs of vocational vehicle service instructors in the state of Wisconsin. One hundred sixty out of a total population of 200 (80 percent) responded to the questionnaire. A mean score of 3.75 or above was considered by the author as an indication of agreement. An analysis revealed the following results.

Findings

The findings of this study concerning the question, "what is the perceived interest in professional improvement by vocational vehicle service instructors?" are that: all instructional groups rated three items with an indication of agreement. The vocational vehicle servicing instructors reported that they support professional improvement. They also agreed upon obtaining related employment as part of an in-service program. The rank-order distribution is summarized as follows:

Rank	Questionnaire Statement
1	Participate in industrial sponsored training courses
2	Visit shops and other appropriate facilities
3	Obtain related employment in industry during the summer months
4	Obtain related employment as part of an in-service program.

Concerning the question, "what activities would help vocational vehicle instructors to stay abreast of their occupational field?" all four instructional groups perceived the following items as pertinent to staying abreast of one's occupational field.

Rank	Questionnaire Statement
1	Attend pertinent trade seminars
2	Read technical journals and other appropriate literature
3	Attend in-service conferences
4	Belong to professional organizations.

Concerning the question, "what methods of having the school system aid in professional improvements were favored by vocational vehicle service instructors?" all four instructional groups perceived the following six items of the seven as most beneficial.

Rank	Questionnaire Statement
1	Provide funds to help underwrite the cost of your attendance at meetings outside of your school system
2	Give a salary recognition for further occupational experience
3	Provide released time for you to make industrial visits
4	Conduct in-service technical workshops
5	Provide a sabbatical opportunity for you to gain further occupational experience
6	Work-out a salary schedule for a summer employment for further occupational experience.

Concerning the question, "what methods of delivery of instruction were favored to meet the perceived professional improvement needs of vocational vehicle service instructors." the four instructional groups would prefer professional improvement in the form of: (a) hands-on workshops, and (b) specially scheduled classes. They ranked these in the following manner:

Rank	Questionnaire Statement
1	Hands-on workshops
2	Specially scheduled classes.

Recommendations

Vocational vehicle service instructors in the state of Wisconsin provided some realistic perceptions into their specific needs in professional improvement. As highlighted in the literature review, it is a necessary function to get educators involved in the individual process of professional improvement.

This group of educators has offered some insight and suggestions to the pursual of professional improvement. From these findings and the data accumulated, the following recommendations seem to be warranted.

1. Continued industrial or hands-on experience designed to up-date or develop new competencies should be recognized as credit for salary re-classification or re-certification.

2. A course in professional development should be offered to explore various opportunities for: (a) the need for continual occupational upgrading, (b) the variety of educational opportunities, and (c) ways of developing a flexible personal development plan.

3. The Wisconsin Board of Vocational Education, the university system, school administration, and educators need to continue working closely with business and industry to: (a) obtain industry sponsored workshops for occupational up-grading, (b) participate in work experience programs, and (c) receive technical information on new hands-on methods.

4. Vocational vehicle service instructors need both the allotted time and the opportunity to visit industry on a regular basis so as to remain attuned to occupational changes.

5. Vocational vehicle service instructors need to be actively involved in the education delivery system including in-service opportunities and special seminars designed to fit their occupational needs.

6. There is an on-going need to periodically survey vocational vehicle service instructors professional development needs through the Wisconsin Vocational Board, the university, and the school system.

SELECTED BIBLIOGRAPHY

1. Anderson, Garfield A. "A Study of the Development Needs of Post-Secondary Vocational Teachers and Administrators in Alabama as Determined by their Characteristics, Perceptions, and Implementation Desires." (Unpub. Ed.D. dissertation, Auburn University, 1976.)

2. Browder, L.H. and W.A. Atkins, and E. Kaya. Developing an Educationally Accountable Program. Berkeley, CA: McGutchan Publishing Company, 1973.

3. Bush, Donald C. Occupational Education, A Position Statement. Rocky Mountain Educational Laboratory. Denver, CO: U.S. Department of Health, Education, and Welfare, 1968.

4. Evans, Rupert N. and David R. Terry. Changing the Role of Vocational Teacher Education. Chicago, IL: McKnight Publishing Company, 1971.

5. Good, Carter V. Dictionary of Education. New York, NY: McGraw-Hill Book Company, Inc., 1973.

6. Graham, Nancy. "The Role of Professional Associations in Comprehensive Personnel Development." Comprehensive Vocational Education Personnel Development and Utilization. Washington D.C.: U.S. Government Printing Office, 1972.

7. Hill, Alberta D. "The Chapter of Assumptions Underlying Inservice Vocational Teacher Education Program." Changing the Role of Vocational Teacher Education. Ed. Rupert N. Evans and David R. Terry. Chicago, IL: McKnight Publishing Company, 1971.

8. Hill, Garth A. "In-Service Needs Assessment for Utah Trade and Industrial Teachers." (Unpub. Ph.D. dissertation, Colorado State University, 1979.)

9. James, F. Don. "Identification, Development, and Implementation of Elements in Effective Comprehensive Personnel Development Systems." Comprehensive Vocational Education Personnel Development and Utilization. Washington D.C.: U.S. Government Printing Office, 1972.

10. Kahler, Edward P. "An Assessment of the Professional Needs of Vocational Educators in the Eastern Region of Pennsylvania." (Unpub. Ed.D. dissertation, Temple University, 1979.)

11. King, Willard. Personal Interview. Wauwatosa, Wisconsin, October, 1981.

12. Knight, Clyde. Personal Interview. Stillwater, Oklahoma, June, 1981.

13. Knoll, Peter F. and John F. Stephens. In-service Training for Vocational Teachers in Utah, Final Report. Salt Lake City, UT: Research Coordinator Unit for Vocational and Technical Education, March, 1968.

14. Larson, Milton E. Institute Interest of Technical Trade and Industrial Teachers of Colorado. Ft. Collins, CO: Research Report, Colorado State University, 1967.

15. Leep, L.G. "Developing More and Better Inservice Programs." Clearing House, Vol. 43 (October, 1968).

16. Loser, Thomas. "Preservice and Inservice Training for Vocational Teachers in Colorado." (Unpub. Ph.D. dissertation, Colorado State University, 1976.)

17. Lowman, L. "Planning Inservice Programs for Professional Upgrading." American Vocational Journal, Vol. 46 (November, 1971).

18. McComas, James D. "What is the Personnel Development System for Vocational and Technical Education?" Comprehensive Vocational Education Personnel Development and Utilization. Washington, DC: Government Printing Office, 1972.

19. Miller, Aaron and Angelo Gillie. "A Suggested Guide for Post-Secondary Vocational and Technical Education." Columbus, OH: The Center for Vocational and Technical Education, Ohio State University, September, 1970.

20. Prosser, Charles A. Evening Industrial Schools. Chicago, IL: American Technical Society, 1951.

21. Roehrich, Robert R. "The Criteria for Determining Technical Updating Needs in Two Year Technical Colleges as Perceived by Technical Instructors and Administrators." (Unpub. Ph.D. dissertation, Ohio State University, 1979.)

22. Sexton, Carl N. The University as the Administrative Unit for Arranging Inservice Work Experiences of Occupational Education Teachers: Final Report. Chicago, IL: Illinois State Board of Vocational Education, January, 1975.

23. Silvius, G. Harold and Andrew F. Ford. The Report of the Michigan Study of Industrial Teacher Competence. Detroit, MI: Research Report, Wayne State University, 1965.

24. Speight, L.A. "The Development of Suggested Guidelines to Facilitate Occupational Updating of Post-Secondary Vocational and Technical Education Teachers." (Unpub. Ph.D. dissertation, North Carolina State Universtiy, 1976.)

25. Stadt, Ronald W. "Acquiring and Maintaining Competencies Through Other Sources." Competencies of Teachers: Vocational Education Shows the Way. Edited by Evans, Terry, and Thompson, Washington, DC: U.S. Government Printing Office, 1972.

26. Studebaker, Earnest B. and Edwin F. Rumpf. National Goods of Trade and Industrial Education and Meeting the Growth Demands for Training - What are the Needs? Washington, D.C.: Office of Education, 1968.

27. U.S. Department of Health Education and Welfare. Comprehensive Vocational Education Personnel Development and Utilization. Washington D.C.: U.S. Government Printing Office, 1972.

28. Welch, Frederick G. and Kirby Yung. "Inservice Training Needs of Post-Secondary Occupational Teachers in Pennsylvania." Journal of Industrial Teacher Education, Vol. 17, No. 2 (Summer, 1980), pp. 41-42.

29. Womer, F.B. Developing a Large Scale Assessment Program. Cooperative Accountability Project. Denver, CO: Colorado Department of Education, 1973.

30. Willers, Jack C. "The Quality of Life in the Seventies and Implications for Vocational Teacher Education." Changing the Role of Vocational Teacher Education. Edited by Rupert N. Evans and David R. Terry. Chicago,IL: McKnight Publishing Company, 1971.

APPENDIXES

APPENDIX A

THE INSTRUMENT

As a vehicle service trade instructor, you have certain perceptions of what is needed in the form of professional improvement. These types of improvements can aid you in many ways. The following is a list of items that relate to professional improvement. Please respond to each statement by circling the appropriate response of the five point rating scale. The rating scale will indicate the degree of your response to the statement, from strongly agree to strongly disagree.

Your cooperation in this questionnaire is greatly appreciated. Thank you.

Job Title: _____ Age _____

No. of years in present position _____ No. of years of trade experience _____

Educational Level: High Sch. ____, Some Coll. ____, Coll. Grad. ____, Grad. Degree ____

Please use the following scale: SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree. Circle only one response.

In the area of professional improvement, I feel the following items might be helpful if I could:

1. Participate in industrial-sponsored training courses.	SA	A	U	D	SD
2. Obtain related employment in industry during the summer months.	SA	A	U	D	SD
3. Take advanced technical courses at the university level.	SA	A	U	D	SD
4. Visit shops, and other appropriate facilities.	SA	A	U	D	SD
5. Obtain related employment as part of an in-service program.	SA	A	U	D	SD
6. Apply for and study under grants.	SA	A	U	D	SD
7. Obtain related employment as part of your regular teaching load.	SA	A	U	D	SD

In order to stay abreast of my occupational field, I would:

8. Attend pertinent trade seminars.	SA	A	U	D	SD
9. Belong to professional organizations.	SA	A	U	D	SD
10. Read technical journals and other appropriate literature.	SA	A	U	D	SD
11. Attend in-service conferences.	SA	A	U	D	SD

If your school system were to establish some practices or programs to help you remain up-to-date in your respective field, they should:

12. Provide funds to help underwrite the cost of your attendance at meetings outside of your school system.	SA	A	U	D	SD
13. Give a salary recognition for further occupational experience.	SA	A	U	D	SD
14. Conduct in-service technical workshops.	SA	A	U	D	SD
15. Provide released time for you to gain more occupational experience.	SA	A	U	D	SD
16. Provide a sabbatical opportunity for you to gain further occupational experience.	SA	A	U	D	SD
17. Provide released time for you to make industrial visits.	SA	A	U	D	SD
18. Work-out a salary schedule for summer employment for further occupational experience.	SA	A	U	D	SD

I would like to receive professional improvement in the form of:

19.	Regularly scheduled classes.	SA	A	U	D	SD
20.	Specially scheduled classes.	SA	A	U	D	SD
21.	Hands-on-workshops.	SA	A	U	D	SD
22.	Individualized instruction.	SA	A	U	D	SD
23.	Independent study.	SA	A	U	D	SD

Informational Questions

24. Please list any way that you have used to develop yourself professionally:

25. I would also be interested in developing myself professionally in the following areas or ways:

Thomas Kapusta
7410 West Casper
Milwaukee, WI 53223

APPENDIX B

QUESTIONNAIRE EVALUATION FORM

Questionnaire Evaluation

The questionnaire you have just completed is part of my research project. I am trying to perceive the professional improvement needs of vocational vehicle servicing instructors at the post-secondary level. Your evaluation of the questionnaire would be extremely helpful.

Please rank your opinions of the questionnaire according to the following scale:

1 == unfavorable
2 == poor
3 == average
4 == above average
5 == very favorable

1. Overall impression of questionnaire 1 2 3 4 5
2. Length of questionnaire 1 2 3 4 5
3. Clarity of statements 1 2 3 4 5
4. Style of questionnaire 1 2 3 4 5
5. The degree to which the questionnaire perceives the professional improvement needs of vocational vehicle service instructors
   1 2 3 4 5

Please offer any suggestions you may have for improving this questionniare.

Please return this evaluation sheet along with the questionnaire in the envelope provided!

APPENDIX C

COVER LETTER

August 15, 1981

Dear Colleague:

As someone closely involved in the maintenance and servicing of vehicles, you may have a variety of professional needs. I have developed a questionnaire in the hope of identifying professional improvement needs. The Wisconsin Board of Vocational, Techncial and Adult Education and I feel that this study will provide information which may be a service to each and everyone of us.

This is an opportunity for you to share your views with:

(1) The Wisconsin Board of Vocational, Technical and Adult Education
(2) Teacher Educators
(3) Administrators and
(4) Other Colleagues.

Please assist me in this effort by completing the enclosed questionnaire and returning it. No postage is necessary. Simply complete both sides, staple it together, and drop it in the mail. Each questionnaire and your responses will remain strictly confidential. If you would like a copy of the results feel free to fill out the enclosed card. I will see to it that you receive the findings.

Your cooperation in this matter is greatly appreciated. If I could have this questionnaire returned before October 1, 1981, it would be very helpful.

Sincerely,

Thomas D. Kapusta
Automotive Instructor
Milwaukee Area Techncial College

APPENDIX D

FOLLOW-UP LETTER

October 7, 1981

Dear Colleague:

A questionnaire was recently mailed to you concerning identifying professional improvement needs. I realize the questionnaire may have arrived at a time when you were unusually busy with your regular activities.

I am sending you another questionnaire in the event that the original has been misplaced or perhaps was not received. Please assist me in this effort by completing the enclosed questionnaire. Simply complete both sides, staple it together, and drop it in the mail. No postage is necessary.

Please return the questionnaire as soon as possible. Your cooperation in this matter is greatly appreciated.

Sincerely,

Thomas D. Kapusta
Automotive Instructor
Milwaukee Area Technical College

VITA

Thomas David Kapusta

Candidate for Degree of

Doctor of Education

Thesis: PROFESSIONAL IMPROVEMENT NEEDS OF VOCATIONAL VEHICLE SERVICE INSTRUCTORS AT WISCONSIN POST-SECONDARY SCHOOLS

Major Field: Occupational and Adult Education

Biographical:

Personal Data: Born in Milwaukee, Wisconsin, August 27, 1953, the son of Joseph and Rose Kapusta.

Education: Graduated from Marquette High School, Milwaukee, Wisconsin, in May, 1971; received Bachelor of Arts degree from University of Wisconsin, Milwaukee, 1977; received Master of Science degree in Vocational Education from the University of Wisconsin, Stout, 1979; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1984.

Professional Experience: Automotive Technician, Kapusta Bros. and Sons Inc., Milwaukee, Wisconsin, 1969-76; Automotive Servicing Instructor, Milwaukee Area Technical College, Milwaukee, Wisconsin, 1976 to the present with related experiences in the following areas: 1. cooperative education coordinator for automotive servicing, 2. instructing for General Motors for one year, 3. evening school supervision.

Professional Organizations: American Vocational Association, National Association of College Automotive Teachers, Sports Car Club of America, Vocational Industrial Clubs of America, Wisconsin Association for Vocational and Adult Education, Wisconsin Automotive Technicians.