The Practical Industrial Communication (PIC) program is a form of individualized instruction that teaches communication skills to students in vocational/technical curricula at Red River Community College, Winnipeg, Manitoba. A placement test determines whether students begin with all or part of a ten-hour writing skills review or proceed directly to the core area of the program. Following the completion of the core instructional units, students select as many topics from a set of optional units as their individualized programs allow. The main advantages of the PIC program are that students receive instruction in a variety of job-oriented topics to help them before and during employment and that students can experience more learning situations in less time and in less physical space than before. The program's disadvantages are that cost, class size, and instructors' workloads have increased, and that some students are unable to accept the responsibilities of independent study. Evidence of the program's success includes a significantly higher course completion rate. (A course outline of the PIC program is attached.) (RL)
NOTES ON PRESENTATION

PIC - A SELF-PACED PRACTICAL COMMUNICATIONS PROGRAM

FOR TECHNICAL/VOCATIONAL STUDENTS

by

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Summary

The Practical Industrial Communication (PIC) program introduced at Red River Community College to counteract student apathy to "English," and to inject relevance into our communications courses, has sparked enthusiasm among students, instructors, and employers. The key is a guided independent study mode that tailors each course to individual students' needs. A combination of student self-pacing, comfortable classroom environment, relevant subject matter, and interested course advisors who have time to work with individuals and small groups, has changed "English/Communications" from a boring requirement into a living, interesting, useful subject.
Introduction

The Industrial and Technology Communications Department at Red River Community College teaches functional writing, clear speaking, and other business topics to students from three general areas:

(a) Technical/vocational (skilled trades) courses - blue collar workers in-training,
(b) Engineering technology courses - white collar workers in-training,
(c) Business and government - professionals and para professionals on-the-job.

Our department's goal is the same for all three groups: to give our students the communication skills they will need to survive and prosper in their chosen fields of work. The material we cover and the methods we employ vary from group to group because the needs vary from group to group.

This paper describes our approach to the teaching of "communication" to students attending technical/vocational courses.

Overview of the PIC Program

The PIC program we have instituted at Red River Community College has required a major change in focus and direction. Prior to 1975, our technical/vocational communications courses comprised a variety of inconsistent approaches which evolved from individual instructor interpretations of course outlines. These approaches plainly failed to satisfy the needs of either our students or their employers. So in 1975 we conducted an employer survey and a subsequent data analysis, which suggested that a more realistic approach would be to concentrate on on-the-job communication needs. The ultimate result of our research has become the PIC program.

The presentation method in this individualized program is primarily learning packages of print materials, which are interspersed with films, videotapes, audiotapes, seminars, and (rarely) lectures. The variety of methods helps compensate for those students who do not learn well through print materials.
At the beginning of the program, students are "streamed" into two different areas depending upon their language-handling abilities. Students who have an identifiable problem with language-handling skills undertake all or part of a ten-hour writing skills review (The W.R.I.T.E. Program) to bring their basic language skills up to an acceptable level. Students who can demonstrate an acceptable proficiency in language-handling skills proceed directly into the "core area" of the program (see Figure 1).

Students take the "core area" packages regardless of the stream in which they begin, so that there are uniform topic areas for all students taking a particular course. The number of W.R.I.T.E. units that each student undertakes, however, determines the number of "options" he or she is able to tackle. For example, assume that a student automotive technician is assigned 30 units, 17 of which are "core" topics (see Figure 2). If the student is exempt from the W.R.I.T.E. segment, he can select 13 "options"; but if he has to undertake; say, 7 of the 10 W.R.I.T.E. topics, he can select only 6 "options."

![Diagram of program modules and options](image-url)

**Fig. 1 -- PIC Program Basic Modules**

**Fig. 2 -- Flow Chart -- 30-unit Course**
Selection of optional topics is the prerogative of the student. However, the selection is made with the advice and assistance of both the individual student's vocational instructor and his or her communications instructor. The intent is to provide students with information and skills which will assist them along their career paths and toward their career goals.

Apart from the W.R.I.T.E. segment, the overall program is divided into five basically chronological areas to simulate a typical employee's progress through the various job stages. They are:

1. Getting a Job
2. Getting Along on the Job
3. Getting Ahead on the Job
4. Creating Your Own Job: Starting a Business, and Job- and Business-related Topics
5. Human Relations

Areas (1) and (2) are undertaken by nearly all classes. Area (3) is directed primarily to students who want or are likely to attain a supervisory position, or who simply want to understand the techniques of supervision; it stresses the importance of effective communication for persons who supervise others. Area (4), although not a typical job stage, applies to students who ultimately intend to start their own business or who want to understand how small businesses function; again, the communications aspects of business ownership are stressed. Area (5), although not necessarily in chronological order, is for students who want to understand themselves and others better than they presently do, and to communicate efficiently and empathetically in both business and society.

PIC Program Facilities

For the PIC Program we have departed from the normal classroom environment—in which one instructor and a group of students are assigned to a characterless, bare-walled room equipped with uncomfortable chairs and an equal number of student desks—and in its place we have set up an environmentally appealing "communications center." All students come to the center (commonly known as the PIC Room) and work in comfortable surroundings with as many as three instructors to advise them.
The PIC Room is large (roughly, 40 ft. by 25 ft.), carpeted, painted in warm orange, beige and brown tones, and its open wall spaces sport a selection of colorful travel posters. One wall is almost completely shelved, and contains all the resource materials used by students. Another wall is lined with individual study centers which, when our budget permits, will eventually hold small TV/cassette playback systems and other A/V aids. The central area has trapezoidal tables arranged so that students can sit in pairs or small groups of up to six persons. (Chairs and tables are not lined up in orderly classroom fashion, and there is no set instructor's position.) A 20-inch Sony cassette TV playback system and a 16 mm film projector are moved about the room on mobile carts, ready for use with small or large groups of students. And easily-transported 8 ft. x 4 ft. panels are inserted between tables if the room needs to be divided for multiple activities.

Two or three classes use the room simultaneously, with a total of up to 45 students. Each class has its own instructor, and the instructors move from table to table, answering questions, giving advice to students experiencing difficulty, and coordinating discussion groups. Each instructor is knowledgeable in most subject areas, and is a specialist on certain topics, so that a broad area of expertise usually is available to satisfy student questions. And, because we believe that in the PIC Room an instructor's function is primarily to advise and assist students, we have chosen to refer to ourselves as "Course Advisors" rather than "instructors."

**PIC Program Basic Aims**

Before embarking on the PIC Program, we made five assumptions which in reality became unwritten aims. They were:

1. Every student should be considered individually; within certain constraints, we would tailor a student's points of entry into and exit from the communications course according to his or her capabilities and needs.

2. Students should be able to study different topics, and yet be considered to have completed the same communications course.
3. Topics should be classified into two categories ("Necessary to Know" and "Nice to Know"), which would vary according to a student's trade or vocation. For example, knowing how to write an inspection report should be a required topic for a forestry student, but would be only of marginal interest to a meat cutting student.

4. Unusual as well as traditional communications topics should be introduced into each student's communications course. This assumption evolved as a compromise between those in our department who felt strongly that we should teach only a traditional English/Communications course, and those who felt (equally strongly) that business topics should form an integral part of our program. The latter were sensitive to the fact that both the vocational training departments we served and the employers who hired our graduates had for some time been questioning the relevance of our communications courses.

5. Students should be able to work at their own pace, with no minimum but a firm maximum time for course completion.

**PIC Program Topics**

As the Attachment to these notes shows, the topics covered by the PIC Program are wide and varied. Our intent is threefold:

* To assist students who have basic language-handling problems to improve their writing skills so that they can express themselves clearly, at a level of competence suitable for their chosen field. Our approach is away from standard grammatical terminology and toward easy-to-understand terms that can be understood by all of our students.

* To provide practical instruction in the skills that students will need to find employment, and as employees on the job (e.g. writing business letters and reports, completing special-type forms, making good oral presentations).
To create an awareness of factors that will be useful to students both on the job and in society, we want students to be exposed to ideas, to think about them, and to know that if they encounter a situation in which a learned topic has some application, they will have background knowledge that will help them to cope with the situation, and will know where to turn for more detailed information.

Topics are classified into three areas (see Figure 1):

1. **W.R.I.T.E.** - 40 units designed to improve student's writing skills.
2. **CORE** - 18 units classified generally as "Essential to Know." Students are assigned units in the core area that apply particularly to their vocation or trade.
3. **OPTIONS** - 44 units classified generally as "Nice to Know." Students select as many topics from this area as their program allows. (For some vocations, certain topics listed as options may be assigned to students as "core" units.)

**PIC Program Implementation**

Students enter the PIC Program as a class, but exit individually as each student completes his or her allotted number of packages. During their first hour, students are shown a 10-minute videotape that outlines how the program operates and introduces them to independent study and individualized instruction. Their course advisor then takes over, describing the number of packages they must complete, suggesting that students start considering the optional topics available to them, and answering questions. The students then write a fairly simple placement test which is used to define their point of entry.

As Figure 1 shows, students may enter at the W.R.I.T.E. segment, or start directly with the CORE units. Their course advisor tells each student how many W.R.I.T.E. units he or she must undertake, and how many OPTION units may be selected. (The CORE units are, of course, the same for all students in the class.) Typical examples are shown in Figures 2 and 3.
<table>
<thead>
<tr>
<th>TRADE</th>
<th>ASSIGN UNITS</th>
<th>WRITE (10 Units)</th>
<th>CORE (18 Units)</th>
<th>OPTIONS (44 Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Technician</td>
<td>30 A</td>
<td>3 - 10</td>
<td>17</td>
<td>13. 3 - 10</td>
</tr>
<tr>
<td>Carpenter</td>
<td>30 A</td>
<td>3 - 10</td>
<td>15</td>
<td>15. 5 - 12</td>
</tr>
<tr>
<td>Dental Assistant</td>
<td>33 A</td>
<td>3 - 10</td>
<td>13</td>
<td>20. 10 - 17</td>
</tr>
<tr>
<td>Radio Operator</td>
<td>54 B</td>
<td>3 - 10</td>
<td>14</td>
<td>10. 0 - 7</td>
</tr>
</tbody>
</table>

Fig. 3 - Options Available to Streams A and B for Various Trades/Vocations.

Students are warned not to be lulled into a false sense of security by the freedom that the independent study mode seems to offer. Some students adapt readily to working on their own, and welcome both the independence and the opportunity to forge ahead. Others, less well-disciplined, need to be monitored and given a gentle push from time to time. For them, we frequently establish firm target dates as "mileposts" for completion of certain segments.

Few students fail the course, but this is not because we have lowered our expectations. When student assignments are not up to the required standard, they have to be re-done by the student with the assistance of his or her course advisor, who explains where the student has gone wrong. Those that do fail, choose to fail, either by not turning up for classes or by not handing in sufficient assignments.
Surprisingly, the course completion rate has been significantly higher with the PIC program than it was with the previous method of normal classroom instruction. The key seems to be a combination of the relaxed atmosphere, student independence and consequent self-motivation, firmly established completion dates, and the continual interest of course advisors who consider each student as an individual.

Conclusions

The main advantages of the PIC program are that students cover a large variety of job-oriented topics which are designed to help them before and during employment, and in their business if that is their goal. We have also found that more students can experience more learning situations in less time and in less physical space than before. Students who are ambitious are motivated to finish the course early; students who are having difficulty have a greater opportunity than before to experience one-to-one assistance from their course advisor.

There are disadvantages too. Some students are not able to accept the responsibilities inherent in an independent study system. And cost, class size, and instructors' marking loads have all tended to increase. The latter aspects we have had to monitor carefully, because College administrations tend to consider independent study to be a cost-saving device and look askance at our requests for help!

But there is no doubt that the PIC program is a success. Departments who previously withdrew their students from our Communications courses because they considered our courses lacked relevance, are now requesting that Communications be re-established as a required subject. And other Departments have approached us with requests that we extend the PIC philosophy to their programs. We just need more space -- and people.
PLACEMENT TEST

A brief questionnaire in which students give information about previous English/Communications instruction they have received, and attempt one or two simple exercises in grammatical usage and paragraph construction.

W.R.I.T.E. (Writing Review: Industrial & Trades English)

From the Placement Test, we learn if students need to review grammar or composition, or both. If they do, students attempt all or part of a programmed writing review that directs them to work through sections in which they most need help.

Unit 1: Writing Functional English

Sec. 1: Words We Use All the Time
Using nouns and pronouns.

Sec. 2: Action Words
Using verbs effectively.

Sec. 3: Putting a Few Words Together
Writing simple sentences.

Sec. 4: Adding Color to Description Words
Inserting adjectives into basic sentences.

Sec. 5: Adding Color to Action Words
Inserting adverbs into basic sentences.

Sec. 6: Assembling Your Thoughts
Writing more complex sentences.

Sec. 7: Making Your Words Agree
Achieving subject-verb and pronoun-antecedent agreement.

Sec. 8: Putting Some Ideas Together
Writing simple paragraphs.
Sec. 9: Inserting Commas and Stops
Punctuating sentences and paragraphs.
Sec. 10: Building Short Messages
Writing and combining several paragraphs.
CORE TOPICS (Compulsory for all students):
If the Placement Test shows that students do not need the Writing Review, they start their course at Unit 2.
The objective of the Core area is to prepare students to find a job in their particular field, and to be able to cope with various tasks and problems that may arise on the job.
Unit 2: Getting The Job
Sec. 1: Finding the Right Job
Getting a lead on prospective job openings, learning how to develop leads.
Sec. 2: Applying for a Job
Writing a letter of application, preparing a resume, and filling in an application form. (Counts as 3 topics.)
Sec. 3: Handling the Job Interview
Preparing for a job interview, learning what interviewers look for when they ask certain questions, and answering questions confidently.
Unit 3: Getting Along On The Job
Sec. 1: Fulfilling Job Responsibilities
One's responsibilities as an employee; writing a job description applicable to the student's trade or vocation.
Sec. 2: Co-operating with Others
Co-operating with supervisors, co-workers, and customers; handling complaints.
Sec. 3: Working toward Promotion
Anticipating and preparing for promotion; the qualities desired of employees who are being evaluated for promotion.
Sec. 4: Inspection Report
Organizing and writing an inspection report; making recommendations cleanly and efficiently.

Sec. 5: Accident Report
Organizing and writing a clear, concise accident report; completing the proper forms correctly.

Sec. 6: Service Orders (Primarily for Automotive Mechanics)
Filling in a work or service order clearly, concisely and correctly.

Sec. 7: Purchase Orders
Making up a purchase order; identifying and inserting all the information required for efficient service and delivery of goods.

Included in the "Core" area are five topics relating to Legislative Acts, governmental agencies, and associated interest groups which may be of importance to students when they enter the labor force. These are inserted as "Core" topics if they relate specifically to the students' chosen trade or vocation; otherwise, they become optional topics (they are listed under Unit 6).

OPTIONAL TOPICS (Students' choice)
In addition to Core topics, students may choose a number of topics from Units 4, 5, 6 and 7. We suggest that they do this in consultation with their Shop Instructors, so that they can be guided to select the most useful topics to suit their career plans.

The objective of many of the optional topics is to encourage students to develop their leadership qualities, to prepare themselves to become supervisors, or to learn the rudiments of organizing and operating their own small businesses.

The number of options that students may select depends upon whether they have had to do some or all of the W.R.I.T.E. packages in Unit 1: the more W.R.I.T.E. packages they attempt, the fewer options they may select.

Unit 4: Getting Ahead on The Job

Sec. 1: Developing a Supervisory Style
The various approaches to supervision and how to apply each in a given situation.

Sec. 2: Motivating Subordinates
Motivating subordinates and keeping them motivated.
Sec. 3: Taking Responsibility and Delegating

Why, how, and when to delegate authority, and how to ensure control of work that is delegated.

Sec. 4: Problem Solving and Disciplining

Identifying, defining and resolving typical problems; disciplining effectively and without incurring rancor.

Sec. 5: Labor-Management Relations

Unions, their place in industry, how to communicate with them, and what they can do for employees. Various wage schemes, and the advantages and disadvantages of each.

Sec. 6: On-the-Job Writing Fundamentals

Writing style desired by industry, business and government organizations; writing clearly and concisely.

Sec. 7: Incident (Occurrence) Reports

Organizing information in sequence; presenting written facts clearly.

Sec. 8: Job Progress Reports

Organizing the relevant facts of a situation into a standard progress report format; using these facts to write a clear, complete progress report.

Sec. 9: Investigation Reports

Writing a logical, well-reasoned investigation report through a series of investigative steps.

Sec. 10: Recommendation (Suggestion) Reports

Organizing suggestion reports, making recommendations, and presenting alternatives.

Sec. 11: Writing Instructions

Writing instructions that will invoke quick and correct reader response.

Sec. 12: Employee Rating Forms

The main rating systems and how they are used to assess employees.
Unit 5: Creating Your Own Job: Organizing and Operating a Small Business

Sec. 1: Basic Business Organization
The main ways in which to organize a small business -- Sole Ownership, Partnership, or Corporation -- and the advantages and disadvantages of each.

Sec. 2: Financing a Small Business
Financing a business, and the sources of funds available to a person starting a new small business.

Sec. 3: Locating a Business
Taking a market survey to establish the business potential in a particular area; the various elements which go into finding a suitable location.

Sec. 4: Staffing a Business
Where and how to find suitable employees, and how to conduct an interview.

Sec. 5: Basic Accounting Procedures
Setting up and operating a basic accounting system suitable for a small business. (Counts as 12 topics).

Sec. 6: Writing Letters in Business
The various forms of business letters; constructing business letters for specific situations.

Sec. 7: Inventory Control
The importance of inventory control, and basic methods.

Sec. 8: Taxation and Insurance
Direct and indirect taxes, business insurance, legal implications.

Unit 6: Job and Business—Related Topics

Sec. 1: Worker's Compensation Boards
Sec. 2: Injured Worker's Association
Sec. 3: Unemployment Insurance
Sec. 4: Mechanics' Lien
Sec. 5: Garage Keeper's Act
(These topics are frequently included in the "core" area.)
Unit 7: Human Relations Topics

Sec. 1: Getting Involved with People

The work environment often requires being part of a group of people who share the responsibility for achieving the overall objectives of a job. This unit involves relating to other people, and developing some appreciation for what they have achieved in their lives.

Sec. 2: Communication Skills in Groups

The importance of feedback and effective listening in work situations; developing skill in giving and receiving feedback.

Sec. 3: Decision Making

Effective decision-making and problem solving, as an individual and as a member of a group. How the student as an individual makes decisions that affect his/her life.

Sec. 4: Clarifying Your Values

Understanding that everything we do, every decision we make, and every course of action we take, is based on our consciously or unconsciously held beliefs, attitudes and values.

Sec. 5: Overcoming Blocks

How students may prevent themselves from achieving career or personal goals; overcoming faulty assumptions and catastrophic expectations; developing self confidence.

NOTE

The notes and tests contained in certain PIC Program packages have been combined into two Prentice-Hall Inc. textbooks, one of which has been published:


-- contains notes and tests from:

- Unit 2 (all Sections)
- Unit 3 (Sections 1, 4, 5 & 7)
- Unit 4 (Sections 6 to 11)
- Unit 5 (Section 6)

Blicq, R. S.: *Just Write: A Do-it-yourself Review of Basic English (in preparation)*

-- contains all ten Sections of Unit 1.