Designing a Curriculum Evaluation for a Vocational Educational Program in a Large Correctional System.

Design and implementation of a curriculum evaluation plan for the vocational education program (occupational education under the Carl D. Perkins Vocational and Applied Technology Act) of a large correctional system are described. An outside evaluator assisted in designing and conducting the first year's evaluation. The 1991-92 curriculum used was a modification of the Massachusetts Competency Based Vocational Educational Curriculum encompassing 16 occupational areas and the academic competencies required. Curriculum treatment and its effects in year one were evaluated by experts in the vocational areas who observed the program, examined the curriculum, and interviewed instructors and a sample of students. An evaluation instrument was developed to provide uniformity of data collection across the 13 institutions studied. An evaluation design schedule was drawn up to form a time, task, and talent (TTT) chart for the first year. The TTT chart brings findings in the areas of student factors, program design, faculty, and facilities into a relationship with the personnel needed to carry out the evaluation and a time schedule that relates task completion to the use of the evaluation findings. The goal in years 2 and 3 will be to provide faculty and administration with information that will inform program decisions. Four charts present the evaluation design. An appendix contains the evaluation instrument. (SLD)
DESIGNING A CURRICULUM EVALUATION
FOR A VOCATIONAL EDUCATIONAL PROGRAM
IN A LARGE CORRECTIONAL SYSTEM

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INTRODUCTION

Curriculum evaluations on a large scale present a myriad of problems. Usually randomization is precluded by the scheduling and curriculum requirements of the subjects. The problems of specification of treatment variables and outcomes, as well as obtaining adequate measures and fair comparisons with equivalent populations, plague the curriculum evaluator methodologist. When curriculum evaluations are undertaken in the unusual settings of large correctional institutions, these methodological problems are further compounded by context variables unique to prison settings and disparate population samples. Prison populations have vastly over-representations of populations who: score low on basic achievement tests in mathematics and reading, are deficient on measures of social problem-solving skills, have no proficiency in vocational trade skills, and present scattered, uneven records of unskilled employment prior to incarceration. Social cognitive deficits which parallel these behavioral manifestations have been found to correlate highly with career criminal behavior patterns and subsequently a long history of involvement with the criminal justice system (Rose and Fabiano, 1985). While the consequences of these social cognitive deficits are readily apparent in the behavior of adjudicated youth within the setting of the
correctional institution, the measurement and evaluation of curricular and instructional efforts directed to remedy through fundamental change the deficits in the twelve social problem-solving skills common to these youth present unique methodological evaluation research problems. Previous research has identified twelve social problem-solving skills that youthful offenders lack or use ineffectively in their social functioning: controlling first impulses, taking another's perspective, clarifying and formulating the problem, setting appropriate and realistic goals, accurately appraising one's competence in the situation, generating effective solutions, evaluating and anticipating consequences of a chosen solution, anticipating potential difficulties in carrying out a solution, and adjusting behavior by getting and using feedback (Larson, 1988). Occupational education, because it builds on direct behavioral assessment by the individual of actions and products, and fosters the exercise of talent, skills and emotions when engaged in a work setting, can contribute to personal understanding of self and employment skills (Lattimore, 1990; Hassell, 1988). The lack of either of these dimensions condemns the individual to social marginality as a citizen, employee and nuclear family member.

How severe is the problem of imprisonment in the United States in general and in the Commonwealth of Massachusetts in particular? The United States ranks number one among nations in incarceration and in number of individuals involved with the criminal justice system at a rate of 400 per 100,000 of population.
For comparative purposes, The Netherlands rate is 21 per 100,000, and Great Britain is 80 per 100,000. The Commonwealth of Massachusetts has a much lower rate than the United States in general with a rate of 175 per 100,000. Appalling as these base figures may seem, the equally, if not more troubling fact, is in the rate of increase, with 10% to 11% per year over the last four years (Imel, 1990). Crimes resulting in incarceration vary sharply among populations, especially by race, income and educational levels. A recent study in one major east coast city (Washington, D.C.) found 42% of black males age 18 to 35 enmeshed in the criminal justice system, either incarcerated (15%), on probation or parole (21%), awaiting trial or being sought for arrest (6%). And 70% are arrested by the age of 35 and about 85% are arrested at some point in their lives (De Parle, 1992). Among white males in the same city, the estimates are that less than 10% were involved in any way with the criminal justice system, and a review of the population of those in detention found 98% black and 1% white. Black inner city youth who have been encountering greater problems with employment, education and family stability are swelling the ranks of the incarcerated at an increased rate over the last decade.

The National Institute of Law Enforcement and Criminal Justice published a statistical profile of the United States' prison population that reflects the disadvantageous status this population occupies when compared to the normative status of the general population.
* Forty percent of all jail and prison inmates have completed high school compared to 85% of 20 to 29 year old males in the U.S. population.

* The proportion of high school dropouts is three times larger among the incarcerated.

* Six percent of all inmates have no schooling at all and their rate of incarceration is three times higher than the next highest group - high school dropouts.

* College graduates have an extremely low incarceration rate.

* Offenders are predominantly male (96%) and disproportionately young (50% under 20 years of age), black (47%), and unmarried (80%) as compared to the general population.

* Most offenders are poor. The average unemployment rate for offenders prior to arrest was about 40%. Of those who were employed prior to arrest, 80% made less than a poverty-level salary. Twelve percent of those who were employed worked only part time.

* The typical female offender is under 30, a single mother with two or more children, economically dependent and troubled by physical and/or mental illness, as well as drug and/or alcohol dependency.

* It has been estimated that up to 40% of the adults now incarcerated need special education services because of learning disabilities and other handicapping conditions.

* A substantial number of state prison inmates have grown up in a single parent household. (Massachusetts Department of Corrections, 1992)

Public response to this growth in crime has been primarily directed toward time-honored controls on crime: building more detention facilities and imposing longer sentences. A rash of prison construction at an average cost of $50,000 per bed has been underway, but at this point there appears to be a consensus among criminal justice experts that prison facilities cannot be constructed at a rate that keeps pace with arrest by the police and sentencing to confinement by the courts, actions that are viewed as
favorable responses by the general public who seek public order and personal security (Lyall, 1992). A strong contributor to the swelling prison population has been the change in sentencing laws which mandates determinate sentences for specific crimes, particularly those against the person, and reduces the latitude for early parole granted in exercise of judicial judgment (Crizer, 1991). Though these structural changes have driven up the costs of the criminal justice system at a rapid rate, the public exhibits a failure to connect the actions at the front end of the criminal justice system to the high cost and low returns in the reciprocal results of limited deterrence of crime and high recidivism among offenders.

Incarceration represents the most expensive form of correctional supervision and the resultant outcomes in reduction of crime have been found to be almost negligible (Commonwealth of Massachusetts, 1990). What seems to be lacking in this misplaced faith of the American people in longer sentences and securer prisons is that long sentences served with other anti-social individuals embeds in the individual a persona long recognized by those with extensive experience with the incarcerated as prisonization, i.e., the inculcating of social norms and behaviors that increase the dysfunctionality of the individual in a normal community where trust must be won and choice exercised. In the enthusiasm for separating out and confining perpetrators of crime, the American public seems to have forgotten that nearly all prisoners are released and rarely serve the total sentence (three-
fourths are paroled), and most become eligible for parole after serving one-third of their sentence, spending a proportion of time in incarceration and community-supervised time equal to about two-thirds of the maximum sentence adjudicated for the offense (Snarr, 1985). The offender who is convicted and sentenced (even life sentences in some cases become eligible for parole) serves only a fraction of his/her time in an incapacitation environment, i.e., segregated from the larger society, and in most cases is released within a one to seven year time frame after sentencing. Thus, despite public commitment to lock them up and leave them, the reality is that criminal offenders do return to society at a fairly rapid rate and confinement is a form of inconvenience rather than a period for reeducation or reintegration into society for severe offenders.

A Bureau of Justice study of felons released and a six year follow-up found that almost 63% had been rearrested, 47% reconvicted, and 42% incarcerated within three years of release. The 63% rearrested had been charged with an average of five new offenses (Bureau of Justice Statistics, 1989). In short, recidivism is widespread and doing time seems to be of little value in redirecting the energies of offenders into positive, constructive behavior as opposed to the continuation of anti-social conduct that landed them in the criminal justice system originally. Correction education programs were designed to reintegrate offenders as useful citizens in society, able to support themselves and their families through productive employment and to function as
law-abiding citizens in the community in which they reside. As policy in the treatment of offenders has shifted, giving recognition to the fact that offenders will not spend the majority of their lives walled off from society, the interest and commitment to correction education has grown. Because of the basic education deficiencies of many prisoners in reading and mathematics skills (it is estimated that illiteracy afflicts from 50 to 75 percent of the prison population), literacy education in correctional institutions receives major attention. In a similar manner, the vocational training program has been seen as vital to a correction education curriculum that will be contributory to the employability of the offender upon release into society. To counter recidivism and to improve the quality of life of the incarcerated, state and federal legislation has moved to provide funding to inmates' education through improved and expanded corrections curriculum.

Recent federal legislation has prescribed the development of occupational education state programs for inmates held at various levels of security. These programs have been predicated upon recent studies that demonstrate that vocational education is a successful contributor to the rehabilitation of inmates. The curriculum organized in the correctional system to address these two major deficits was a modularized, job-specific, competency-based curriculum ordered in scope and sequence to meet the special problem of students who are frequently transferred from facility to facility to continue their education. The curriculum will be implemented over a three-year period of funding and will include 16
vocational areas in 13 correctional institutions (see Chart 1). An integrated approach in teaching academic skills in reading and mathematics will be used. An evaluation is required during all three years which will be based upon "... acquisition of competencies, the integration of vocational and academic skills and licences or other credentials gained." (Massachusetts Department of Correction, Division of Inmate Training, 1991).

CHART 1

Programs Sponsored by Carl D. Perkins Vocational and Applied Technology Act

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>PROGRAM TITLE</th>
<th>$ AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Barnstable</td>
<td>Welding</td>
<td>$12,800</td>
</tr>
<tr>
<td>2. Berkshire</td>
<td>Auto, Carpentry</td>
<td>$ 6,574</td>
</tr>
<tr>
<td>3. Bristol</td>
<td>Carpentry</td>
<td>$ 6,400</td>
</tr>
<tr>
<td>4. DYS</td>
<td>Carpentry/Green/Mason</td>
<td></td>
</tr>
<tr>
<td>5. Franklin</td>
<td>Food Management</td>
<td>$ 5,638</td>
</tr>
<tr>
<td>6. Hampden</td>
<td>Spec. Pop. Coordinator</td>
<td>$13,000</td>
</tr>
<tr>
<td>7. Hampshire</td>
<td>Drafting</td>
<td>$ 8,200</td>
</tr>
<tr>
<td>8. MCI - Framingham</td>
<td>Aesthetician</td>
<td>$12,900</td>
</tr>
<tr>
<td>9. MCI - Framingham</td>
<td>Desktop Publishing</td>
<td>$ 7,500</td>
</tr>
<tr>
<td>10. MCI - Framingham</td>
<td>Manicurist</td>
<td>$12,050</td>
</tr>
<tr>
<td>11. MCI - Walpole</td>
<td>Comprehensive Learning Lab.</td>
<td>$49,882</td>
</tr>
<tr>
<td>12. Norfolk</td>
<td>Graphic Arts/Printing</td>
<td></td>
</tr>
<tr>
<td>13. Norfolk</td>
<td>Small Engine</td>
<td>$ 987</td>
</tr>
<tr>
<td>14. Plymouth</td>
<td>Printing</td>
<td>$12,595</td>
</tr>
<tr>
<td>15. Suffolk</td>
<td>Printing/Graphics</td>
<td>$ 7,860</td>
</tr>
<tr>
<td>16. Worcester</td>
<td>Electronics/Baking/Landscaping</td>
<td>$ 8,000</td>
</tr>
</tbody>
</table>
METHOD

An outside evaluator from a state university was commissioned to assist in designing the curriculum evaluation plan and to conduct the first year's evaluation. The curriculum being used during the 1991-92 school year is a slightly modified Massachusetts Competency Based Vocational Education Curriculum which encompasses both the specific occupational areas (N=16) and the academic competencies required. Two approaches to evaluation were undertaken during year one. The curriculum treatment and its effects in year one were evaluated using experts in the vocational areas being taught who observed the program, examined the curriculum as taught, and interviewed the instructors and a sample of students. While they (the experts) did have the major responsibility for judging the curriculum processes and products, they conferred with the outside evaluator on selection of data sources and data gathering procedures.

An evaluation instrument was developed to provide uniformity to data collection across sites. The instrument gathered data on program components of: student enrollment, program outline, program requirements, student selection, student records, faculty qualifications, curriculum guides and use, activities and individuals supported by federal monies, assessment procedures, integration of vocational and academic skills, student use of
assessment, instructor needs assessment, student completion, advisory committees, incentives for participation, and adequacy of facilities (See Appendix A). The items on the instrument were developed from an evaluation instrument produced by the Correctional Education Association (U.S.A.) and from the report of performance audit of the educational programs in state correctional institutions conducted in 1990 (Commonwealth of Massachusetts, 1990). Evaluators familiar with the occupational education fields and correctional education visited each of the sites, conducted the interviews, examined records and instructional materials, and surveyed facilities. An evaluation design schedule was drawn up into a Time, Task and Talent Chart (See Chart 2) for year 1 of the three year evaluation.

RESULTS

The results from the sixteen components of the occupational education program that came under the purview of the Carl D. Perkins Vocational and Applied Technology Act funding are reported under four sub-headings: student factors, program design, faculty, and facilities. All data from interviews were analyzed qualitatively cross-sectionally among the institutions, as well as individually by institution. A decomposition analysis of program was done to isolate the effects of federal funding, inasmuch as this was only a small percent of the total program funding. In the decomposition analysis, direct tracing of expenditures is made to
# Chart 2

## Time, Task, Talent (TTT)
### Evaluation Design (Year 1)

<table>
<thead>
<tr>
<th>TASK/TALENT</th>
<th>APRIL 1992</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUGUST 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Academic Skills</td>
<td>Select and develop</td>
<td>Examine archival data</td>
<td>Examine prelim. results</td>
<td>Develop test schedule</td>
<td></td>
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<tr>
<td>Faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.I.'s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Vocational Competencies</td>
<td>Establish list of competencies</td>
<td>Select &amp; test instruments</td>
<td>Develop competencies test schedule</td>
<td></td>
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<tr>
<td>Faculty</td>
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<tr>
<td>P.I.'s</td>
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<td></td>
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<tr>
<td>3 Integration of 1 &amp; 2</td>
<td>Review onsite curriculum goals</td>
<td>Specify areas of integration</td>
<td>Analyze prelim. data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
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<tr>
<td>P.I.'s</td>
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<tr>
<td>4 Student Assess Year 1</td>
<td>Observations and interviews onsite</td>
<td>Second OBS and interviews</td>
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<tr>
<td>P.I.'s</td>
<td></td>
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<tr>
<td>5 Faculty Workshop</td>
<td></td>
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<td></td>
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<tr>
<td>Faculty</td>
<td></td>
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<tr>
<td>P.I.'s</td>
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<td></td>
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<tr>
<td>6 Student Credentialing</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Evaluation Schedule</td>
<td>Preliminary Eval. design years 2 - 3</td>
<td>Final Eval. design years 2 - 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.I.'s</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8 Reports</td>
<td>Preliminary Report Year 1</td>
<td>Final Report Year 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.I.'s</td>
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</table>

**Legend:** ■ = Beginning and end of activity; ¤ = Completion of activity; O = On-going activity
connect the effect of the funding on the programs, e.g., in one program the Perkins funds were used to buy a curriculum package that was presented through a computer station and served as an individually paced tutorial program in literacy skills.

**Student Factors**

Records of students, faculty and student interviews serve as the primary data base for this area. Student enrollment is predicated on the classification testing data that is done at an inmate's entry into the system and on the counselor's and teacher's judgment of whether an inmate can benefit from the program. In most of the 16 programs there is far more demand than there are slots for students. Because of the high percentage of illiteracy in the inmate population, there is a great need for applicants to become qualified in the basic skills of reading and mathematics prior to entering the vocational programs. It is estimated that 80% of the inmates are handicapped by being: mentally retarded, hard of hearing, deaf, speech impaired, health impaired, multi-handicapped or afflicted with assorted learning disabilities. With this special population there is a need for instructors to be versed in special education approaches, and with the lowest 20% of the inmate population, in pedagogical strategies specific to a functional curriculum (Williams, 1989). With over 50% of inmates lacking basic literacy skills, i.e., below seventh grade reading and mathematics, these individuals are restricted from entry into the vocational program, though most are in literacy education (Wofford, 1986). Motivating inmate enrollment in the vocational
programs is not an issue as days are deducted from a sentence for class attendance. However, bringing students to the skill level to profit from the vocational programs is the challenge (Hackett, 1990). Nevertheless, it was found that all programs would need expansion to meet the current and anticipated demand if more inmates qualified for entry. At the present time the students who are entered in the vocational program are those with the highest reading and mathematics scores and having the fewest behavioral disorder handicaps.

Inmates in a few of the correctional institutions are frequently transferred among institutions and this is done outside any concern for their participation in an educational program. Consequently, the running of a continuous program is heavily dependent on records following a student which document student performance in sufficient detail that he can be entered at the appropriate level in the new institution. This appears to be a major weakness in the across institutions curriculum coordination. Most vocational programs are not duplicated in all institutions. Where programs lend themselves to definite skill level development, e.g., welding, the student can be credited with accomplishment of skills by level instead of course completion which would in some cases leaven the disruptiveness of abrupt transfer. However, even with this adjustment it is a problem that requires considerable study and the collection of an adequate data base on students if a policy that is supportive of the correction education program is to emerge and be applied consistently across institutions.
Because the funding of the vocational programs was less than one year underway, it was not possible to assess student completion rates. Completion rates are most probably being influenced by events that are extraneous to the program such as inmate transfer and availability of facilities and instructors.

Program Design

The 16 programs were found to have program outlines and written curricula. These follow a program design of competency-based curricula which has been established by the Vocational Education Division of the Massachusetts State Department of Education. Student assessment records do not reflect these competency-based curricula in great detail and as a result it is not possible to assess student progress and to have an informed account of the students' progress. Students were aware of informal assessment of their progress in all classes. And in some classes where there was a direct linkage of class work to a licensing requirement, as in the aesthetician course, students were very aware of requirements and their fulfillment. It appears that the close assessment of competency is related to programs that are linked to reentry jobs upon release. Where these linkages were strong and direct, especially with active advisory councils, the program was engaged in a vigorous effort of competency assessment. Where vocational programs were largely self-contained in the institutions with little or no linkage to reentry jobs, specific competency assessment on the part of instructors and competency attainment awareness on the part of participants was limited. Some
of the courses were using computer-assisted instruction and in the cases, specifically of the literacy programs, the assessment procedures were excellent and an integral part of the instructional program.

The integration of academic skills, social skills and living skills in the vocational program was minimal in most programs. Academic skills were more often found to be taught in an applied context. But teaching to enhance and expand the use of basic skills was not a priority for most vocational instructors. Given the inmate population's extensive deficiencies in reading and mathematics, and the long history of school failure that accompanies most offenders, teaching within the context of a functional use of skills has been found to be more successful in advancing learning than the direct teaching in isolation (Jengeleski, 1988). There was some recognition of the importance of integrating the vocational and the academic skills by instructors in the interview, but little integration was observed in the program and instructors posited a need for assistance in advancing the use of an integrated curriculum in the vocational program.

Inmates suffer distinct handicaps in social and living skills—certainly a major contributor to their present incarceration and a major cause of recidivism as the new releasee fails to gain a foothold in employment (Downing, 1987). Experiencing the inability to engage in social relationships in a workplace or to effect a positive social persona in an interview, the releasee falls back
into old patterns of dysfunctional social behavior and the antisocial network which produced the original adjudication of a sentence requiring incarceration. The relationship of social and living skills to vocational success is so tightly drawn in effecting reduction in recidivism that many correctional educators are convinced that vocational education pursued without benefit of these personal and social skills will not produce an increase in successful reentry of the parolee into the outside community and a corresponding decrease in the current 60% to 70% recidivism rate. In general, classes in vocational education were not sensitive to giving attention to pedagogical strategies which develop social skills, i.e., small group instruction in which experience is gained in building cooperative goal structures, obtaining cooperation of group participants, perspective taking, and building trust and reliability in working with others. No evidence was accrued that social skills were understood by instructors as essential knowledge if successful reentry of inmates into the community were to be achieved. In a similar vein, the lack of living skills being integrated in the vocational courses was marked and a serious deficiency in the curriculum.

Faculty

Faculty teaching qualifications were set by teacher certification standards. There were areas of competency where the faculty needed to be upgraded. These have been further identified in the section on program. In interviews the faculty of several of the 16 programs were aware of the need to upgrade the teaching
skills and to introduce newer instructional techniques into the classroom. A closer coordination of the teaching of literacy skills by computer aided programs and the vocational program was a major area for future curriculum improvement. The correctional education program design and its incorporation of the programs funded by the Carl D. Perkins Act require conducting a cooperative needs assessment that uses the faculty's contribution to strengthen the overall instructional treatment, if inmates needs for reeducation that will foster successful reentry into the community are to be met. Faculty would benefit from as well as contribute to a needs assessment, as they become sensitized to the deficiencies in the curriculum and are encouraged to project more specific measurable curriculum goals (Shapiro, 1987). Undoubtedly, faculty inservice will be a product of such a needs assessment. Faculty were found to be in need of assistance in the use of instructional methodologies oriented to the special populations encountered in the inmates. The assistance needed becomes even more pronounced as vocational programs are expanded and the number of severely handicapped population enrolled increases (Nelson, 1987).

Program linkage to reentry jobs in the community is critical if parolees are to make a transition from the vocational program to jobs (Schumaker, 1990). Advisory committees composed of community representatives from the occupational field are essential to promoting linkages of the training in vocational courses in the institution and reentry jobs. Yet few of the programs which have advisory committees use them to provide these necessary linkages.
The one program which has had a proactive use of community advisory committees has been the most successful in job placement of parolees.

Facilities

The quality of the facilities varies in the vocational programs. In general they are derived from space that was formerly built for purposes other than educational. Faculty and administration do their best to achieve program accommodation to limited space, but they admit that program quality is vitiated by the physical facilities. One potential remedy lies in the extension of the vocational program into community work settings, a change that would accomplish the two goals of expanding the facilities at little cost and placing job training in a natural community setting for greater ease in the transfer of job skills on reentry of the parolee into the community (Miller, 1989). The needs assessment recommended in the earlier section should assess this dimension for the vocational education program.

The Carl D. Perkins Act monies on evidence support important and critical program components. They represent a small but important percent of the budget. The majority of the monies has been spent for materials and curricular programs. Unquestionably, they have provided extensions of programs that were not being funded. Because the programs are new and just beginning to be implemented, it is not possible to render a substantive judgment on the worth of the program treatment in year 1. The elements of the
treatment do offer a number of suggestions for the evaluation design for the programs for years 2 and 3. These evaluation components are presented in Chart 3 as a Time, Task and Talent Chart (TTT), which will be used in a planning meeting with the faculty from the 13 corrections institutions which will collaborate on the evaluation design which will be used to assess program treatment in years 2 and 3 of the Carl D. Perkins Act funding.

CONCLUSION

The TTT Chart was organized from the findings of the first year evaluation. It brings these findings into a relationship with the personnel (talent) needed to carry out the evaluation tasks and a time schedule that relates the task completion to the use of the evaluation findings. The goal of the evaluation for years 2 and 3 will be to provide faculty and administration with information that will inform program decisions. Although the evaluation design is to meet the requirements of federal legislation and therefore focuses on vocational education, it recognizes that vocational education is one part of a larger corrections education program directed toward reeducation of the inmate. Due to the formative nature of the evaluation design, it provides for several meetings during the year and will draw up findings at several points during the year as opposed to an end of year report. We believe this
approach has the merit of allowing faculty to make course
corrections and to posit new hypotheses for testing in the program
treatment. Our experience in these participant evaluation projects
has been that parties become more knowledgeable as the treatment
and evaluation proceed, and as experience informs the logic of the
original evaluation design, old hypotheses are refined and new
hypotheses are suggested. In addition, program treatment is
greatly refined as faculty gather data and subject it to analysis.
Thus the TTT Chart is a first approximation from the year 1 data
that will be refined and reconfirmed in our meetings with the
faculty. It will undergo further revision as data are gathered in
the 2nd year. In short, as an evolving design, it is directed to
teaching faculty and administrators who profit from the assessment
as an integral part of the treatment plan.

Evaluation designs for projects of this nature assume common
characteristics as they address the problems generic to the natural
settings where program treatment takes place. These common
characteristics are: a) to identify the effects or variables in
which the client and evaluator have an interest; b) to develop
measurements or observations of these effects or variables and
establish their relationships; c) develop comparisons with groups
or data; and d) generate the specific variables and their
relationships that are producing the effects and specification or
generalization of the results to individuals and groups. The
evaluation design for year 1 required the identification of program
treatment in vocational education in the complex of programs that
is seen in corrections: literacy, basic skills, work programs, as well as vocational programs that receive specific funding from the federal government. Many of the programs are funded from the state or from institutionally derived funds, chiefly from the sale of products produced by prison industries.

Program treatment was identified and the vocational program supported by the federal funds, only a small percent, less than 10%, was disaggregated, i.e., was funded in the program by the federal monies. These funded components were the effects to be studied in the evaluation. However, they were intertwined with the program treatment and could not be put to the usual evaluation tests of program treatments. For example, federal monies purchased a machine for the printing/graphic arts program in one institution. Without those monies, the program would not have been possible, but they represented only 20% of the expenditure for the program for faculty, supplies, and support items of space, heat, electricity. The monies were critical to starting a printing program. For evaluation purposes, this purchase of equipment was crucial to having a treatment effect. But to evaluate what the effects are in years 2 and 3 of the program treatment necessitates a broader assessment, especially where these program monies of the federal government were intermingled with the total program funding effort and collectively comprised the treatment. Only if a broader evaluation of the treatment is carried out can meaningful data for program improvement be obtained (McClintock, 1987). In sum, the effort of the federally sponsored program was disaggregated for
<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>PROGRAM FUNDS EXPENDITURES</th>
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<tbody>
<tr>
<td>Alpha &amp; Omega</td>
<td>Salaries and Instructional Supplies</td>
</tr>
<tr>
<td>Barnstable</td>
<td>Welding Course, Salaries</td>
</tr>
<tr>
<td>Berkshire</td>
<td>Salary Instructor and Instructional Supplies</td>
</tr>
<tr>
<td>Bristol</td>
<td>General Program Supplies</td>
</tr>
<tr>
<td>Franklin</td>
<td>Salary and Instructional Supplies</td>
</tr>
<tr>
<td>Hampden-Springfield</td>
<td>Salary for Special Needs Coordinator</td>
</tr>
<tr>
<td>Hampshire</td>
<td>Salary and Consumable Supplies</td>
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<tr>
<td>Life Resources</td>
<td>Salaries and Consumable Supplies</td>
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<tr>
<td>Norfolk</td>
<td>Capital Equipment</td>
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<tr>
<td>Plymouth</td>
<td>Salaries and Consumable Supplies and Assessment</td>
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<td>South Cove</td>
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</table>
accounting purposes but it will be incorporated into an assessment of the total treatment effect in the evaluation design for the second component measurement. Observation of effects was equally problematic if one attempted to maintain the separateness of the treatment variables related to the federal monies. Thus the same compromise was struck as in determining the effects of the program to be evaluated. Measurement and observations of variates follow conventions common to evaluation practice: faculty and staff were interviewed, students were observed and interviewed, curriculum materials and instructional products were examined. These measures and observations were greatly refined for evaluations in years 2 and 3 and will be examined by the faculty and staff in the reeds assessment and workshops held by the evaluators based on year 1 data. The third component of the evaluation design comparison relied heavily on evaluators’ judgments based on experience with other educational programs. Evaluations comparisons in years 2 and 3 will rely more on within-group-comparisons using the data from year 1 and on more standard comparisons which are derived from a competency-based curriculum prescribed by the State Education Department. Other standardized instruments on classroom observations will be used for years 2 and 3. The findings will be subjected to a decomposition analysis to specify the variates which are most likely to be producing the effects and to target the program treatment variates influenced by input of the federal monies. Generalization will be based on a description of population and its comparability across institutions (there are 13 institutions presenting 16 programs). The generalization qualities
of the evaluation are of lesser concern than the results of the program treatments, effort, effect, and efficiency on educating inmates in the specific vocational programs. The curriculum in the vocational programs is in an embryonic stage in year 1. The goal will be to assist the faculty through evaluative data to adopt and adapt curriculum to the special needs of the inmate population to further their reeducation effect reentry, reduce recidivism, and promote their adjustment to the community. The test of the curriculum will be its congruence in treatment affect to this general guiding goal. The evaluation design for years 2 and 3 as proposed (see Chart 3) is to further the faculty's curriculum development effort to foster greater congruence of the operational curriculum and the general guiding goals of correction education.
### CHART 4
TIME, TASK, TALENT (TTT)

EVALUATION DESIGN AND ACTIVITIES

(September 1992 - February 1994)

<table>
<thead>
<tr>
<th>Needs Assessment</th>
<th>Eval., Class. Staff/Faculty</th>
<th>Participatory Evaluation Design</th>
<th></th>
<th></th>
<th>SEPTEMBER 1992</th>
<th>FEBRUARY 1993</th>
<th>SEPTEMBER 1993</th>
<th>FEBRUARY 1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Student Entry to Program</td>
<td>Classification Staff/Faculty</td>
<td>Begin Record on Student Entry</td>
<td>Midpoint Report - Student Entry</td>
<td></td>
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<td></td>
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<tr>
<td>3 Student Assign. to Program</td>
<td>Classification Staff/Faculty</td>
<td>Criteria on Student Assignment Devel.</td>
<td>Midpoint Report Student Assignment</td>
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<tr>
<td>4 Student Transfers</td>
<td>Classification Staff/Faculty</td>
<td></td>
<td>Midpoint Report on Student Transfers</td>
<td></td>
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<tr>
<td>5 Program Linkage to Community</td>
<td>Advisory Ctee. Evaluator</td>
<td>Committee Assess. Linkage Effort</td>
<td>Midpoint Report on Linkage</td>
<td></td>
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<tr>
<td>6 Integration of Acad. &amp; Voc Ed</td>
<td>Faculty &amp; Evaluator</td>
<td>Obs. of Integration Incurr.</td>
<td>Obs. of Integration Incurr.</td>
<td>Midpoint Report on Integration Obs. of Integration Incurr.</td>
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<tr>
<td>7 Integration of Social Skills</td>
<td>Faculty &amp; Evaluator</td>
<td>Observation of Social Skills</td>
<td>Observation of Social Skills</td>
<td>Midpoint Report on Social Skills Observation of Social Skills</td>
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<tr>
<td>8 Integration of Living Skills</td>
<td>Faculty &amp; Evaluator</td>
<td>Observation of Living Skills</td>
<td>Observation of Living Skills</td>
<td>Midpoint Report on Living Skills Observation of Living Skills</td>
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<tr>
<td>9 Instructional Processes</td>
<td>Faculty &amp; Evaluator</td>
<td>Observation of Instr. Processes</td>
<td>Admin. of Classroom Instruction</td>
<td>Midpoint Report on Instruction Admin. of Classroom Instruction</td>
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</tr>
<tr>
<td>12 Facilities and Program</td>
<td>Evaluator</td>
<td></td>
<td>Review of Facilities &amp; Curriculum</td>
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<tr>
<td>13 Student Progress &amp; Comprehension</td>
<td>Faculty &amp; Evaluator</td>
<td>Student Progress Report</td>
<td>Midpoint Report on Student Progress Student Progress Report</td>
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- `◎` Beginning and end of activity Schedule
- `〇` Completion of an activity
- `△` On-going Activity
1. Needs assessment. Using the data gathered and analyzed in year 1, a needs assessment will be conducted with the faculty, classification and counseling staff in the workshop. The needs assessment will examine the components 2 through 13 and draw up a participative evaluation plan for year 2 and 3. Priorities will be assessed and assigned, instruments identified and scheduled, and purposes for reports established in the needs assessment.

2. Student entry. The criteria for student entry into the 16 vocational programs will be examined and related to the potential student body as compared with the students now served. As one example, there is a need to respond to using criteria that will be more inclusive and that facilitate breaking the barriers of gender that now exist in the vocational program.

3. Student assignment. Once in the vocational program the appropriateness of assignment to learning domains and the establishment of appropriate skill clusters in the learning domains, for example, what is basic and what is advanced mill carpentry. Moreover, once students are assigned by set criteria, what part does previous knowledge and skill play, how do psychological and behavioral criteria interact in determining assignment to a vocational area? In the 1st year evaluation it was found that such criteria are now used as an informal screen by counselors, classification staff and faculty.

4. Student transfers. It is felt that inmate transfers are disruptive to the educational process. This component of the evaluation will gather data on these transfers and their effect on student programs.

5. Program Linkage to community. Because successful reentry of inmates to community is closely correlated with inmates' ability to obtain jobs, the evaluation of this component assumes priority. The role of advisory committees will change from one of being advisory only to becoming proactive in job formation and location.

6. Integration of academics and vocational education. The effort to promote integration of academics, particularly basic skills, and vocational curriculum will be assessed through observations of the classroom, interviews with faculty, and the examination of curriculum materials.
7. Integration of social skills. Despite the focus of this evaluation on vocational education programs, the success of inmates in becoming productive citizens is largely dependent on their ability to break away from habits and relationships that generate anti-social, illegal conduct. Vocational education offers opportunities for teaching social skills, though little was being done in deliberate, directed teaching, and faculty did not seem to be aware of how to integrate in classroom and clinical instruction the attitudinal components of social skills as they taught the conceptual subject matter of trades. In short, the fundamental social relationships which are significant to relating to others, whether at work, in a family or on any formal or informal level, are a critical deficiency in the inmate population.

8. Integration of living skills. Living skills, defined as those skills needed by a person to maintain a state of independent functioning, are not mastered by many of the handicapped in the inmate population. Though not a focal concern in this evaluation, they are a central factor in determining whether an inmate will be able to function upon reentry to a community. There is some attention given to living skills in the basic education program, but the vocational programs have not moved to integrate these into their instruction. A more definitive assessment of inmates needing living skills will be part of the needs assessment, and a plan for integrating, as appropriate, in the vocational curriculum projected.

9. Functional curriculum. If the needs assessment determines there exist sufficient numbers of inmates handicapped severely enough to be unable to profit from vocational courses now offered, faculty and staff will be assisted to explore a functional curriculum possibly connected to work assignments that teach trade skills. A pilot test of a functional curriculum is provided for if a population sufficient to sustain a curriculum is available.

10. Instructional processes. The special characteristics of the population, handicapped, previous records of school and work failure place a burden on instructional processes. In the year 1 evaluation, there was evidence that vocational instructors desired assistance with special methods for inmate populations. One very serious problem in instruction springs from the non-English speaking, primarily Spanish language inmates. They lack basic education in the native language and few instructors have command of Spanish. There is a need for bilingual instruction and use of special methods with this population. A series of instruments for observing instruction and obtaining student assessment of instruction will be used with faculty to gather data and map instructional improvement strategies.
11. Community reentry job settings. The activities charted in 11 will be coordinated with those in 5. Follow-up will be done by the Advisory Committee on inmate success in the reentry jobs. A formal program does not exist in moving inmates into job placement, and a schedule for gradation of inmate work responsibility has not been established. There are many barriers to inmate employment and in a time of economic tightening which the state has been experiencing for the past three years, the barriers become heightened. However, almost all inmates are released, and evidence indicates they serve about one-third of their adjudicated sentence, about seven years for serious crimes and as short as 11 months on average in some prisons for less serious crimes. Recidivism was found to run at 75% in one of the prisons among inmates who serve sentences on the average of 11 months. The chief variable in contributing to recidivism was unemployment, no stable job. The tie between providing the inmate with some vocational skills, integrated with a fundamental understanding of basic social and life skills which promote employability on release, appears to be the critical educational task of correction education. Successful community reentry is the litmus test of the correction education program, job placement success its most viable indicator.

12. Facilities and program. The vocational programs are in general short of space which severely limits programs. There are some movements afoot to remedy the deficiencies by administrators and instructors. Progress will be monitored in this area.

13. Student progress and completion. The factors that effect student completion of the vocational program are not well understood. Inmate motivation plays a large part in program discontinuance, but this appears to be more of a label than an explanation. Student progress is recorded, but it is done in a general and non-specific record. There is a need to disaggregate these data if they are to be used to improve program from a better understanding of student progress and continuation in the vocational programs. Faculty in the needs assessment will be looking at competencies measures and grade evaluations to use in their courses.

14. Interim and final report. Evaluation reports will be rendered and their results will be used with faculty and staff four times over the two-year life of the project. These reports will reflect the 13 components of the project and be used to improve the vocational curriculum funded by the Carl D. Perkins Act monies.
BIBLIOGRAPHY


Massachusetts Department of Correction
Division of Inmate Education

Program Evaluation Guide (Vocational)
RFP# 920CCEVAL

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(617) 335-7783

May 4, 1992
Date

Name of Institution ____________________________ Name of Evaluator ____________________________

1. Has the program (______________________) been implemented and is it (Name of Program) underway at time of visit? How long has this program been in existence?

2. How many students are enrolled?

3. Briefly describe the program. Upon completion, how many hours would a student have completed?

4. How are students selected for the program and what are the requirements (prerequisites) for their participation?

5. Are there records on students and what is the nature of these records, e.g. test scores, grades or skills achieved?
6. What are the faculty qualifications who are teaching in the program?

7. Is there a written curriculum and is it being used?

8. What do the federal monies specifically support in the budget? Inquire about how the dollar amount is being expended.

9. How are vocational competencies being assessed? How would faculty like them to be assessed? Would they participate in field testing a competency-based instrument?

10. Is there any merger of vocational and academic skills in the vocational program?

11. Are students aware of assessment of student work effort and progress in the vocational program? Does the program use the evaluation instrument developed by the Inmate Education Division?
12. What do instructors see as the primary need to make the program successful in serving students?

13. Have any students completed the program? Have they achieved licensing status, if available?

14. Is there any evidence of involvement of business and industry advisory teams?

15. Are there any incentives for inmates to participate in the program?

16. How adequate are the facilities for conducting the program?

17. Any other observations or comments (by the staff).