What Works & What Can Be Effectively Managed: A Close Look at the Data

This paper has its inception in two literature analyses undertaken in the wake of a Prison Service Directorate of Inmate Programmes Senior Management Seminar held at Newbold Revel in the Spring of 1992. The present author was one of four contributors (Nuttall, Williams, Thornton and Longley) presenting papers on various aspects of the “Implications of Recent Research for Regimes and Inmate Programmes” (Regimes, Research & Development Report 1, 1992).

The first analysis, comprising section one of this paper, was the result of a careful reading of evidence cited by Andrews et al (1990) for the efficacy of rehabilitative programmes. The circumstances which prompted this analysis were that the present author was tasked with preparing a summary of the seminar’s major themes for a National Briefing for Governors scheduled for distribution in the Autumn of 1992. In the preparation of that summary, the present author re-examined the evidence, paying particular attention to the efficacy of programmes conducted within custodial settings. These analyses led to somewhat different implications for policy than some of the more general conclusions expressed in the seminar. The present author circulated these concerns in writing to Senior Management in the Directorate of Inmate Programmes in late 1992.

The second analysis, covered in section two of this paper, is a critical evaluation of one of the few published studies on the efficacy of “Cognitive Skills” programmes (Porporino, Fabiano and Ewles (1991). This programme comprises one of the English Prison Service’s ‘Special Programmes’, and also contributes to the content of the Sex Offender Treatment Programme. Since the first appearance of this analysis in February 1993, a further report has been published by Robinson (1995), and from the perspective developed below, the data presented by Robinson (1995) can be taken to substantiate the tentative conclusions drawn from the earlier (1991) paper.

Elsewhere (Longley 1996), the present author has highlighted some other difficulties which must be faced by those who claim that there are merits to working from a ‘cognitive’ rather than strictly behavioural perspective, and some of these points are mentioned in passing in this part of the paper. However, the main theme here is empirical, ie a non-partisan analysis of the results provided by the Canadian authors themselves along with the implications of those analyses for a positive approach to inmate sentence management and control.

The third piece of research is the “Sentence Management” system itself, which has been under development at various prisons in England since 1991. This system has been designed to provide managers and inmates with an infrastructure to support effective Sentence Planning and control.

A brief summary of the system is provided, and an account is provided as to how some of the findings discussed in sections one and two might be put to effective use in support of a more effective system of inmate Sentence Planning and Management than has hitherto been the case.
Section 1. What Actually Works? (And Where)

'The primary reason for the impact of "What Works?" is the extraordinary gap between the claims of success made by proponents of various treatments and the reality revealed by good research.'

Robert Martinson (1976)
California Research at the Crossroads
Crime & Delinquency, April 1976, pp.63-73

It may help to look closely at some recent views and analyses of 'What Works', in the area of inmate rehabilitation. Here is what Martinson (1976) had to say about the common defences of the 'efficacy' of programmes:

'Palmer's critique of "What Works?" is a strong defense of what was best in the California tradition of "recidivism only" research; it is also a stubborn refusal to take the step forward from that kind of thinking to the era of "social planning" research.

The primary reason for the impact of "What Works?" is the extraordinary gap between the claims of success made by proponents of various treatments and the reality revealed by good research.

Palmer bases his critique on grounds of research methods. In doing so, he makes an interpretation error by construing as "studies" the "efforts" Martinson mentions in his conclusion. In fact, "effort" represents an independent variable category; this use of the term does not justify Palmer's statement that Martinson inaccurately described individual studies, whose results have been favorable or partially favorable, as being few and isolated exceptions. The table in which Palmer tabulates 48 percent of the research studies as having at least partially positive results is meaningless; it includes findings from studies of "intervention" as dissimilar as probation placement and castration. Palmer does not understand the difficulties of summarising a body of research findings. The problem lies in drawing together often conflicting findings from individual studies which differ in the degree of reliance that can be placed on their conclusions. It is essential to weigh the evidence and not merely count the studies. The real conclusion of "What Works?" is that the addition of isolated treatment elements to a system in which a given flow of offenders has generated a gross rate of recidivism has very little effect in changing this rate of recidivism.

To continue the search for treatment that will reduce the recidivism rate of the "middle base expectancy" group or that will show differential effects for that group is to become trapped in a dead end. The essence of the new "social planning" epoch is a change in the dependent variable from recidivism to the crime rate (combined with cost). The public does not care whether a program will demonstrate that the experimental group shows a lower recidivism rate than a control group; rather, it wants to know whether the program reduced the overall crime rate. To ask "which methods work best for which types of offenders
and under what conditions or in what types of settings" is to impose the narrowest of questions on the research for knowledge. The economists, too, do not live in Palmer's world of "types" of offenders. To them, recidivism is an aspect of occupational choice strengthened by the atrophy of skills and opportunity for legitimate work that occurs during the stay in prison.

The aim of future research will be to create the knowledge needed to reduce crime. It must combine the analytical skills of the economist, the jurisprudence of the lawyer, the sociology of the life span, and the analysis of systems. Traditional "evaluation" will play a modest but declining role.'

Robert Martinson
California Research at the Crossroads
Crime & Delinquency, April 1976, pp.63-73 (my emphasis)

Martinson's sanguine recommendation is for more work and less rhetoric, and that work will, as he says, depend on our establishing, and analysing the results of better systems. The same cautious remarks were made by Lab and Whitehead (1990) in response to the analysis of Andrews et al. As recently as 1990, researchers attempting to identify 'what works' from meta-analyses of published research on programmes produced the following (it should be noted that the analysis offered here presents a significantly different picture to that presented by Nuttall in the 1992 seminar referenced above.:

'Even without applications of the principles of risk and need, the behavioral aspect of the responsivity principle was supported. The mean phi coefficient for behavioral service was 0.29 (N=41) compared with an average phi of .04 (N=113) for nonbehavioral interventions overall and with 0.07 (N=83) for nonbehavioral treatments when criminal sanctions were excluded...

We Were Not Nice to Guided Group Interaction & Psychodynamic Therapy:

We reported empirical tests of guided group interaction and psychodynamic therapy that yielded negative mean phi estimates and, in response, Lab and Whitehead cited rhetoric favorable to treatments that even their review had found ineffective. Ideally, research findings have the effect of increasing or decreasing confidence in an underlying theory. Reversing that ideal of the relationship between theory and research, Lab and Whitehead use theory to refute research findings unfavorable to treatments that they apparently prefer, and they use theory to reject research findings favorable to treatments that apparently they find less attractive.'

Andrews et al. (1990)
A Human Science Approach or More Punishments and Pessimism: A Rejoinder to Lab and Whitehead - Criminology, 28,3 1990 419-429
Note that of the 154 tests of correctional treatment surveyed by Andrews et al (1990), the division into juvenile and adult across the four types of treatment were as follows:

<table>
<thead>
<tr>
<th></th>
<th>JUVENILE</th>
<th>ADULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CRIMINAL SANCTIONS</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>2. INAPPROPRIATE CORRECTIONAL SERVICE</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>3. UNSPECIFIED CORRECTIONAL SERVICE</td>
<td>29</td>
<td>3</td>
</tr>
<tr>
<td>4. APPROPRIATE CORRECTIONAL SERVICE</td>
<td>45</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>131</td>
<td>23</td>
</tr>
</tbody>
</table>

a = Significant NEGATIVE Phi  
b = Negative Phi  
c = 0 Phi  
d = Positive Phi  
e = Significant POSITIVE Phi

The authors classified all of their studies into one of the above four types to bring home their point that if programmes are analysed as to whether on not programmes are appropriately targeted etc., it becomes easier to ascertain whether anything does in fact work.

A negative Phi coefficient indicates that, if anything, the control group did better than the treatment group in the outcome measure. A significant negative Phi indicates that this trend was statistically significant; ie that the treatment group did worse than the control group.

Of the 23 adult programmes, 9 resulted in positive significant Phi coefficients, ie where the treatment groups did better than controls. These 9 studies are examined more closely below.

Each of the 9 studies is listed along with its Phi coefficient. Listed also are the percentages reconvicting in the treatment and control groups. Size of these two groups is also listed, as is the setting of the programme.

A. Appropriateness Uncertain on Targets/Style

J of Offender Counselling, Services & Rehabilitation  
Phi = 0.21 24% Treatment Group (N=50) Reconvicted vs. 44% of Control Group (N=50)  
Setting = COMMUNITY

B. Structured One-on-one Paraprofessional/Peer Program

American Sociological Review 45,448-462  
Phi = 0.15 15% of Treatment Group (N=72) Reconvicted vs. 28% of Controls (N=116)  
Setting = COMMUNITY

C. Intensive Structured Skill Training
Fabiano E.A & International Journal of Offender Therapy and Ewles C.D Comparative Criminology

Phi = 0.52, 18% of Treatment Group (N=22) reoffended vs. 70% of control group, (N=23)
Setting = COMMUNITY

4. Same Study

Phi = 0.31, 18% of treatment group (N=22) reoffended vs. 47% of control group, (N=17)
Setting = COMMUNITY

   Violence and Victims 1:163-175
Phi = 0.43, 4% of treatment group (N=50) reoffended vs. 40% of control group, (N=50)
Setting = COMMUNITY

D. Appropriately Matched According to Risk/Responsivity or Need Systems

   Heinz R.C. & Bureau of Community Corrections, Wisconsin
   Bemus B.J Department of Health and Social Services

Phi = 0.17, 16% of treatment group (N=184) reoffended vs. 30% of control group, (N=184)
Setting = COMMUNITY

   Kiessling J.J, evaluation with young adult probationers.
   Robinson D. & Canadian Journal of Criminology 28,377-396
   Mickus S.

Phi = 0.31, 33% of treatment group (N=54) reoffended vs. 75% of control group, (N=12)
Setting = COMMUNITY

   & Kiessling J.J practices: A summary of the CaVIC research

Phi = 0.82, 0% of treatment group (N=11) reoffended vs. 80% of control group, (N=10)
Setting = COMMUNITY

9. Same study
Phi = 0.27, 31% of treatment group (N=34) reoffended vs. 58% of control group, (N=23)
It should be noted that all 9 studies which had positive Phi coefficients for the adult programmes were conducted in the community, not in custodial settings. All 9 programmes were classified as 'Probation, Parole, Community' (PPC).

This is the major conclusion to be drawn from this section, along with the fact that the English Prison Service is concerned with programmes which are run within an institutional setting.

In fact, Andrews et al. (1990) say:

*The minor but statistically significant adjusted main effect of setting is displayed in column six of Table 1. This trend should not be overemphasized, but the relatively weak performance of appropriate correctional service in residential facilities is notable from Table 2 (mean phi estimate of .20 compared with .35 for treatment within community settings, F[1/52] = 5.89, p<.02). In addition, inappropriate service performed particularly poorly in residential settings compared with community settings (-.15 versus -.04, F[1/36] = 3.74, p<.06). Thus, it seems that institutions and residential settings may dampen the positive effects of appropriate service while augmenting the negative impact of inappropriate service. This admittedly tentative finding does not suggest that appropriate correctional services should not be applied in institutional and residential settings. Recall that appropriate service was more effective than inappropriate service in all settings.*

Andrews et. al (1990) ibid p384

In England, policy both in the area of inmate programmes and Sentence Planning is primarily focusing on **convicted, adult males, serving long sentences**. The data cited above speaks for itself. One may or may not agree with Andrews et. al. in their interpretation of these results. Cited below are some further figures drawn from the Andrews paper which should help clarify implications for the thesis being developed in this paper.

Note that there were only 23 Adult studies. Of these, only 5 were in residential or institutional settings. Of these 5, 4 produced negative Phi coefficients, three of them significant (-.18,-.17, and -.14). The fifth programme, which was the only one the authors classed as appropriate, produced a non-significant Phi of 0.09.

*This suggests that at least in terms of the available adult studies, the only significant findings are that adult programmes in institutional/residential settings, have, if any effect, only a deleterious one on likelihood to reconvict - they increase likelihood to re-convict!*

Overleaf is the summary of average Phi coefficients from all of the studies examined in the Andrews et. al. meta-analysis:
### Correctional Service

<table>
<thead>
<tr>
<th></th>
<th>Criminal Sanctions</th>
<th>Inapp</th>
<th>Unspec.</th>
<th>Appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample of Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whitehead &amp; Lab</td>
<td>-.04 (21)</td>
<td>-.11 (20)</td>
<td>.09 (16)</td>
<td>.24 (30)</td>
</tr>
<tr>
<td>Sample 2</td>
<td>-.13 (9)</td>
<td>-.02 (18)</td>
<td>.17 (16)</td>
<td>.37 (24)</td>
</tr>
<tr>
<td>Justice System</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juvenile</td>
<td>-.06 (26)</td>
<td>-.07 (31)</td>
<td>.13 (29)</td>
<td>.29 (45)</td>
</tr>
<tr>
<td>Adult</td>
<td>-.12 (4)</td>
<td>-.03 (7)</td>
<td>.13 (3)</td>
<td>.34 (9)</td>
</tr>
<tr>
<td>Year of Publication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before 1980s</td>
<td>-.16 (10)</td>
<td>-.09 (22)</td>
<td>.17 (11)</td>
<td>.24 (33)</td>
</tr>
<tr>
<td>1980s</td>
<td>-.02 (20)</td>
<td>-.03 (16)</td>
<td>.11 (21)</td>
<td>.40 (21)</td>
</tr>
<tr>
<td>Quality of Research Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weaker</td>
<td>-.07 (21)</td>
<td>-.04 (10)</td>
<td>.15 (18)</td>
<td>.32 (26)</td>
</tr>
<tr>
<td>Stronger</td>
<td>-.07 (9)</td>
<td>-.08 (22)</td>
<td>.11 (14)</td>
<td>.29 (28)</td>
</tr>
<tr>
<td>Setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>-.05 (24)</td>
<td>-.14 (31)</td>
<td>.12 (27)</td>
<td>.35 (37)</td>
</tr>
<tr>
<td>Institution/Res.</td>
<td>-.14 (6)</td>
<td>-.15 (7)</td>
<td>.21 (5)</td>
<td>.20 (17)</td>
</tr>
<tr>
<td>Behavioral Intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>-.07 (24)</td>
<td>-.14 (31)</td>
<td>.12 (27)</td>
<td>.35 (37)</td>
</tr>
<tr>
<td>Yes</td>
<td>-.07 (2)</td>
<td>-.09 (2)</td>
<td>.23 (1)</td>
<td>.31 (38)</td>
</tr>
<tr>
<td>Overall Mean Phi</td>
<td>-.07 (30)</td>
<td>-.06 (38)</td>
<td>.13 (32)</td>
<td>.30 (54)</td>
</tr>
<tr>
<td>S.D.</td>
<td>.14</td>
<td>.15</td>
<td>.16</td>
<td>.19</td>
</tr>
<tr>
<td>Mean Phi Adjusted for</td>
<td>-.08 (30)</td>
<td>-.07 (38)</td>
<td>.10 (32)</td>
<td>.32 (54)</td>
</tr>
<tr>
<td>Other Variables</td>
<td></td>
<td></td>
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</tbody>
</table>

In summary, the 9 adult programmes which had positively significant Phi coefficients were all run in the *community*, they were not run in prisons. In fact, of the 5 adult institutional/residential programmes, 3 produced significant negative Phi coefficients, 1 produced a non-significant negative Phi, and the fifth a Phi of 0.09. Three of the 5 were classed by Andrews et al. under **Criminal Sanctions** (two with significant negative Phi coefficients), 1 under **Inappropriate Correctional Service** (also a significant negative Phi). The only programme to be classified under **Appropriate Correctional Service** was a study by Grant & Grant (1959) entitled 'A Group Dynamics Approach To The Treatment of Nonconformists In The Navy', a programme which produced a Phi of 0.09 (treated group 29% reconvicted (N=135) vs. 38% of the untreated (N=141). On the juvenile side, there were 30 institutional/residential programmes, (there were only 35 institutional or residential programmes in the meta-analysis of 154 programmes). These 30 are presented below:

<table>
<thead>
<tr>
<th></th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JUVENILE</strong></td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Criminal Sanctions</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inappropriate Correctional Service</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Unspecified Correctional Service</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Correctional Service</td>
<td>16</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

Of these 30 programmes, there were 11 which produced significant negative Phi coefficients.
A. Token Economies
5 significant positive Phi coefficients,
(Note that there were also two programmes with negative phi coefficients in this area, one significantly negative)

B. Individual/Group Counselling
1 positive significant Phi

C. Intensive Structured Skill Training
2 significant positive Phi coefficients

D. Structured one-on-one Paraprofessional/Peer Program
1 positive significant Phi

E. Family Therapy
1 positive significant Phi

UNSPECIFIED CORRECTIONAL SERVICE

Months served in programme
1 positive significant Phi

The implications for the efficacy (and therefore resourcing) of adult programmes within residential or institutional settings is not promising on the basis of the studies reviewed by Andrews et al. 1990.

As far as rehabilitation for adult prisoners is concerned, their study provides little direct evidence to support a renewed faith in rehabilitative programmes as conventionally implemented. What their study can be taken to suggest as being worthwhile, is improvements in how we structure what we do, so that we can begin to work towards apposite allocation of inmates to appropriate activities or settings. This option, namely that of making more effective (computational) use of the entire regime, has been outlined elsewhere Longley (1991;1992;1994;1995), and by Beck (1995), and is the focus of section three of this paper.

However, before discussing that option, we need to look at one of the treatment programmes which has attracted attention in the years since the Andrews et al. paper. Over recent years, there have been some moves to introduce formal 'Cognitive Skills' programmes both in the Canadian Correctional System (Porporino et al 1991) and more recently, within the English system (Thornton 1992).

This is the subject of section two of this paper.
Section 2. Cognitive Skill Programmes:..... Do They Work? And What Actually Works

In brief, and based on the published data at the time of writing (1993;1997), efficacy of the Canadian Cognitive Skills Training can not be described as 'robust', nor can it be said that the programme's content per se significantly influences recidivism. The objective here is not to be negative; there may be further unpublished evidence which puts the programme in a more favourable light. However, it is important to point out that, on the basis of the evidence reported by Porporino et al (1991), (and more recently by Robinson 1995), one should view the claims made for the efficacy of the Cognitive Skills programme with a degree of caution. The published results, as outlined below, can be taken to suggest something positive from quite another perspective altogether, if considered from the alternative perspective of Sentence Management as outlined in "The Implications of Recent Research for The Development of Programmes and Regimes" (1992).

The Porporino et al. paper suggests that those who are motivated to co-operate (those who volunteered) did almost as well as those who actually participated in the Cognitive Skills programme. This would seem to be further justification for adopting the attainment based Sentence Management system as an infrastructure for Inmate Sentence Planning and Programmes. If further evidence can be drawn upon to substantiate the published claims for the efficacy of 'Cognitive Skills', that evidence could be used to support the proposed strategy of an integrated use of the natural demands of all activities and routines to inculcate new skills in social behaviour and problem solving. Sentence Management is designed to provide a Prison Service with a means of integrating all of the assessment systems in use across activities; and to deploy behaviour scientists in an area they are best qualified to contribute to - the recording and numerical/actuarial analysis of behavioural data.

The following is how the Canadian group describe their 'Cognitivist' approach:

'The basic assumption of the cognitive model is that the offender's thinking should be a primary target for offender rehabilitation. Cognitive skills, acquired either through life experience or through intervention, may serve to help the individual relate to his environment in a more socially adaptive fashion and reduce the chances of adopting a pattern of criminal conduct.

Such a conceptualization of criminal behaviour has important implications for correctional programming. It suggests that offenders who are poorly equipped cognitively to cope successfully must be taught rather than treated. It suggests that emphasis be placed on teaching offenders social competence by focusing on:

- thinking skills, problem-solving and decision making;
- general strategies for recognizing problems, analyzing them, conceiving alternative non-criminal solutions to them;
- ways of thinking logically, objectively and rationally without overgeneralizing, distorting facts, or externalizing blame;
calculating the consequences of their behaviour - to stop and think before they act;

to go beyond an egocentric view of the world and comprehend and consider the thoughts and feelings of other people;

to improve interpersonal problem-solving skills and develop coping behaviours which can serve as effective alternatives to anti-social or criminal behaviour;

to view frustrations as problem-solving tasks and not just as personal threats;

to develop a self-regulatory system so that their pro-social behaviour is not dependent on external control;

to develop beliefs that they can control their life; that what happens to them depends in large measure on their thinking and the behaviour it leads to.

To date we have been able to examine the outcome of 40 offenders who had been granted some form of conditional release and were followed up in the community for at least six months. On average, the follow up period was 19.7 months. We also gathered information on the outcome of a comparison group of 23 offenders who were selected for Cognitive Skills Training but had not participated. These offenders did not differ from the program participants on a number of characteristics and were followed-up for a comparable period of time.

Offenders in the treatment group were re-admitted for new convictions at a lower rate that the comparison group during the follow-up period. Specifically, only 20% of the treatment group were re-admitted for new convictions compared to 30% of the offenders in the comparison group. It is interesting to note that the number of offenders who were returned to prison without new convictions (e.g. technical violations, day-parole terminations) is similar yet marginally larger in the treatment group. It is possible that the Cognitive Skills Training participants may be subjected to closer monitoring because of expectations regarding the program.

Porporino, Fabiano and Robinson
Focusing on Successful Reintegration: Cognitive Skills Training for Offenders July 1991

The underlined text (by the present author) in the first paragraph is true of any behavioural skill. 'Fragments of Behaviour: The Extensional Stance', extracted from 'A System Specification for PROfiling BElaviour' presents a substantial body of evidence drawn from mainstream research in the psychology of reasoning and learning which suggests that attempts to teach any form of reasoning outside of specific contexts of application is likely to be difficult. It is far more appropriate to teach skills in practical contexts (a possibility the above authors acknowledge). In the light of that evidence, the set of propositions listed by Porporino et al seem ambitious and contentious even for normal individuals (Nisbett et al 1991).
Not only is the theoretical stance which Porporino et al (1991) draws upon dubious on the basis of mainstream research in psychology (see “Fragments of Behaviour: The Extensional Stance” Longley 1996), but the authors tell us that seven of the 23 in the comparison group were reconvicted for a new offence, whilst eight of the 40 offenders in the treatment group were reconvicted for a new offence. Looking at returns to prison for violations of parole etc., the authors said:

'It is interesting to note that the number of offenders who were returned to prison without new convictions (eg technical violations, day-parole terminations) is similar yet marginally larger in the treatment group'.

Furthermore, when the authors compared the predicted reconviction rate (52%) for these groups with the actual rates (20% and 30% for the treatment and comparison groups respectively) the low rate of reconviction in the comparison group led them to conclude:

'motivation for treatment in end of itself may be influential in post-release success'.

In fact, the conclusion can be stated more strongly. Imagine this was a drugs trial. The comparison group, like the treatment group were all volunteers. They all wanted to be in the programme (they all, effectively, wanted to “take the tablets”). Some, however, didn’t get to join the programme (some didn’t get to “take the tablets”), but other than that did not differ from the treatment group. In the Porporino study, those inmates comprised the comparison group. When the reconviction data came in, it showed that those in the comparison group were pretty much like those in the treatment group. The treatment, ie 'the Cognitive Skills' training, had virtually no effect. The comparison group is remarkably like the treatment group in not being reconvicted for a new offence. In fact, if five of the comparison group had reconvicted rather than seven, the reconviction rate would have been the same (20%) for both groups.

<table>
<thead>
<tr>
<th></th>
<th>TREATMENT</th>
<th>COMPARISON</th>
</tr>
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<tbody>
<tr>
<td>Readmissions with New Convictions</td>
<td>20%</td>
<td>30.4%</td>
</tr>
<tr>
<td></td>
<td>(8/40)</td>
<td>(7/23)</td>
</tr>
<tr>
<td>Readmissions without New Convictions</td>
<td>25%</td>
<td>21.7%</td>
</tr>
<tr>
<td></td>
<td>(10/40)</td>
<td>(5/23)</td>
</tr>
<tr>
<td>No Readmissions</td>
<td>55%</td>
<td>47.9%</td>
</tr>
<tr>
<td></td>
<td>(22/40)</td>
<td>(11/23)</td>
</tr>
</tbody>
</table>

Apart from the fact that the numbers being analysed are extremely small, the fact that the authors take these figures to justify statements that Cognitive Skills; ie an intensive 8-12 week course, focusing on what inmates 'think', a course that focuses apparently on changing 'attitudes' rather than 'teaching new/different behaviours'; is causally efficacious in bringing about reductions in recidivism, is questionable. The comparison group, it must be appreciated, were all volunteers, only differing from the treatment group in that they were not selected for the programme. But still, only 30% of those inmates (7/23) were reconvicted for a new offence,
compared to 20% (8/40) in the selected (treatment) group. Compared to the expected reconviction rate for those in either group (52%), one might reasonably be led to the conclusion that those in the comparison group did very well compared to those who actually participated in the programme. This pattern of results casts some doubt as to how important the content of the Cognitive Skills Programme was at all. The fact that the two groups' percentages in the 'No Readmissions' and 'Readmissions Without New Reconvictions' were similar lends support to this view.

The Canadian studies have also presented evidence for short term changes in 'Cognitive Skills' for those participating in the programme (and somewhat surprisingly, sometimes in the comparison groups). Yet the very notion of formal training in abstract 'Cognitive Skills' has been challenged for even normal individuals in recent mainstream psychological research by Nisbett and colleagues (1987), casting further doubt on the viability of teaching abstract, rather than situated, reasoning skills to delinquents. Empirical evidence, collected in the ‘heuristics and biases’ research literature, suggests that “cognitive distortion” may be far more characteristic of normal human judgment (‘commonsense’ or “folk psychology”), than is widely appreciated, particularly where distributional data is unavailable. The simple facts are that much of natural human thinking is demonstrably not normative (Tversky & Kahneman 1973;1982).

Other researchers, e.g. McDougall, Barnett, Ashurst and Willis (1987), although more sensitive to some of the methodological constraints in evaluating such programmes, still give much greater weight to their conclusions than is scientifically warranted by either the design of their studies, or their data. For instance, in the McDougall et al. study, an anger control course resulted in a 'significant' difference in institutional reports in a three month follow up period only at the p<0.05 level using a sign test, a very small difference which might be taken as grounds for undertaking further research but little more. More seriously, apart from methodological problems acknowledged by the authors, the suggestion that the efficacious component was cognitive must, in the light of the technical accounts of Null Hypothesis statistical testing given by Meehl (1967;1978) and others (as discussed in Longley 1993;1994;1996), be regarded as largely speculative. On the basis of their design, one might (cautiously) suggest that there is some evidence that participating in the programme had some effect (albeit small, p<0.05), but precisely what it was within the course which was efficacious can not be specified given the design of their study.

As some readers will appreciate, this is a pervasive problem in social science research, and it is an example of how even researchers can sometimes be guilty of 'going beyond the information given' (Bruner 1957;1974). The force of Meehl's and Lakatos' arguments in the light of such failures to refrain from inductive speculation on the basis of minimal evidence should not be treated lightly. It is a problem which has reached epidemic proportions in psychology, as many leading statisticians have remarked in recent years (Guttman 1985, Cohen 1990; see Longley 1996 for an extended discussion).

This tendency to go beyond the data is, alas, likely to be quite representative of the behaviour of professional psychologists when they do not have access to good empirical data. In fact, it is only when provided with distributional data that professionals can behave any differently from the folk psychologist. Most of the designs of experiments reviewed to date simply do not allow researchers to draw positive, policy determining conclusions from their studies as to what should determine the content of rehabilitative correctional programmes, except that motivation to change
may be a behaviour worthy of closer scrutiny. In the McDougall et al. study, the most one might say is that custodial behaviour improved for inmates who participated in their program.

In a major study published in 1995, Robinson provided a full report on the efficacy of the Canadian Cognitive Skills Programmes. Again, the subjects were volunteers. The reader’s attention is drawn to the following extracts from the paper given what has already been covered in sections one and two of this paper:

"Overall, offenders who received Cognitive Skills Training in community settings showed more promising treatment gains than offenders who completed programs in institutional settings. Differences on recidivism between program participants and waiting list control groups were statistically significant for the community sample. The effect for institutional cases was reduced to a non-significant level."

Robinson (1995) (my emphasis)

It should be noted that the English (and Scottish) Prison Services are implementing these programmes within institutional settings. Given the discussion in the present section, a volunteer effect; ie motivation to change; must be examined closely. Given that the treatment and waiting list control groups were all drawn from volunteers, along with the fact that the programme’s efficacy would seem to be restricted to instances where it is run in the community, it might well be the case that inmates who are prepared to volunteer for the programme in a community setting are even more motivated to cooperate than those in institutional settings, since the former already have their freedom. Some evidence in favour of this interpretation is given by the findings that the worst performing inmates were those who volunteered but then dropped out:

"It should be noted that in all of our outcome comparisons, program drop-outs exhibited the highest rates of readmission. Drop-outs had more new offences and technical violations than both program completers and waiting list control group members. This is not surprising given that about half of the drop-outs did not complete the program because of refusal to participate or dismissal by program delivery staff due to lack of co-operation on the part of the offender." Ibid

It is clearly possible that this volunteer effect accounts for a natural partitioning of the population into two groups which differ in their relative scores on recidivism measures, and that it is this motivation to attain which researchers and managers should be working with as the major determinant of rehabilitation. In keeping with the generally constructive theme of this paper, it is worth pointing out that Robinson himself goes on to say something consistent with the recommendations made here and in the next section (first brought to the attention of English Prison Service Senior Management in 1993 (Longley 1993):

"The impressive results obtained in the community suggest that offenders gain more when they learn cognitive skills in the settings where they most need to directly apply the new skills on the street." Ibid
Section 3. An Alternative: Sentence Management & Actuarial Analysis of Attainment

At the same time that 'Cognitive Skills' programmes were being developed in the English prison system, an attempt was being made to introduce a naturalistic approach to behavioural skill development and assessment ('cognitive' skills being but one class of these behaviours). From this perspective, it is proposed that such skills have long been taught within education courses, as elements of specific Vocational Training or Construction Industry Training courses (VTC & CIT courses), and most recently as NVQ programmes. Such skills are also integral to domestic activities such as wing cleaning, and some of the more menial industrial workshop activities.

The system of 'Sentence Management' looks to monitor the inculcation of all skills under the natural conditions of day to day inmate activities and prison routines. It is specifically designed to measure and inculcate new skills, supporting the differential management of inmates on the basis of their achievement and motivation to acquire those new skills.

Systematic work on this system has generated a schedule for the deployment of psychologists in a behaviour monitoring and analysis capacity where attainment data is routinely collected by supervisors from all areas of the regime and summarised objectively in the form of normative reports. The data is automatically analysed and converted into inmate reports which can be used to generate incentive levels, enable staff to monitor changes in group norms, and to identify outliers who might be suitable candidates for behavioural contract negotiation and monitoring. Through an explicit (and audit able) combination of continuous assessment of behaviour, target negotiation, contracting and apposite allocation of inmates, the Sentence Management system aims to maximise transfer of skill acquisition by teaching for transfer (Gladstone 1989), as well as targeting and redressing individual deficits.

One of the basic strengths of the system is that it allows staff to differentiate between inmates who have shown themselves to be receptive to new skills and behaviour change, and those who have not. Such a system provides a basic infrastructure for the differential management of behaviour as a function of records of attainment and behaviour change across all aspects of the regime.

The Porporino et al. (1991) empirical data is quite consistent with the argument that 'volunteers' for programmes make up a sub-population of inmates motivated to attain, who, simply because they are 'attainers', go on to contribute to a difference in reconviction rate when compared to baseline predicted rates. That is, what is observed in studies such as that by Porporino et al (1991), in all likelihood has nothing to do with "Cognitive Skills" course content. The data substantially supports the rationale behind the system outlined here, in the 1992 Directorate of Inmate Programmes Senior Management seminar report, and as empirically illustrated in volume 2 of the 12 volume "A System Specification for PROFiling BEhaviour" (Longley 1995).

It is important to appreciate that the criteria by which the Sentence Management system seeks to assess inmates, are the very criteria which activity supervisors are already using to assess inmates (be these NVQ Performance Criteria, or the 'can do' statements of an RSA English course). The Sentence Management system is designed to enable staff throughout the system to manage assessment material in a common format. The system has not been designed to ask anything new of staff, although they are of course free to add additional criteria to those they already use if they wish. The basic premise is that effective programmes must produce evidence
of behaviour change, and not merely on the basis of self-report or staff opinion. To be effective, one requires reliable, quantitative measures of attainment with respect to preset skill levels - criteria which programme delivery staff are contracted to deliver as elements of the prison regime.

All programmes have predetermined goals or objectives, and these can be specified independently of any participating inmates. Even in the unlikely event that a case can be made that the Special Programmes approach can be excused from delivering such measures, we should not lose sight of the fact that special programmes are likely to be seen as treatment programmes, and can only occupy inmates for a very small proportion of their time in custody. Additionally, in the even more unlikely event of there being a case for addressing how inmates “think” independently of the rest of their behaviour, managers would be well advised to examine carefully what education courses and other, traditional skill based programmes are designed to deliver. There is much to be said for adopting an approach to inmate programmes which is education, rather than “treatment” based, and one which looks to all that a prison regime has to offer as an infrastructure for monitoring and bringing about quantifiable behaviour change.

This behaviour profiling and assessment system, outlined in Longley (1991;1992;1995;1997) and below is specifically designed to provide behaviour scientists and their managers with a formal behaviour management infrastructure within which the professional has an explicit role in the measurement and analysis of positive "attainment". Sentence Management is designed to provide a quantitative shadow of the structure of the regime, providing staff with routine feedback on how each element operates. On this basis, the system provides the sine qua non for effective inmate management and Key Performance Indicator Monitoring, making direct use of the assessment records of all activity supervisors contributing to the regime. Actuarially speaking, “why look into the crystal ball when one can read the book?”. The behaviour scientists’ services are best deployed where they are needed most, namely in the analysis of recorded behavioural data - recorded, it must be emphasised, by all activity supervisors.

Longley Consulting has been created to assist prison managers with the implementation of Key Performance Indicator driven accountable regimes. The Consultancy's expertise lies in the provision of computer-based behaviour profiling and assessment technology in support of the Incentives and Earned Privileges initiative, Open Reporting systems and effective inmate Sentence Management. These services draw on a decade of experience in the provision of practical technologies to support inmate control. This work was facilitated by the PROBE system, itself an implementation of policy recommendations made in the 1984 Control Review Committee. In recent years these services have taken a positive turn in the direction of Sentence Planning which makes optimal use of the whole regime in support of effective population management.

Until late 1994 Prison Service Headquarters provided support for behaviour profiling and research and development. The reorganisation of headquarters in late 1994 resulted in the closure of the Regimes, Research and Development Section and with it, the end of R&D directed technical support for field staff. Consequently, with the recent reduction in size of HQ and decentralization of services, distributional data and support for its analysis is no longer readily available to field behaviour scientists. The implications for effective inmate management and the professional analysis of behaviour is outlined in brief below and at length elsewhere (Longley 1995;1997).
Sentence Management (SM)

This system provides profiles of inmate behaviour based on their levels of attainment across all areas of regime activity. Designed specifically with accountable regimes in mind, Sentence Management makes optimal use of all aspects of inmate activity as a basis for compiling reports and positively managing inmates’ time out of cell.

Sentence Management is based on the joint assumptions:

- that cooperation with all aspects of the regime can be recorded as positive incidents of non-delinquent custodial behaviour, and
- that review of positive attainment levels throughout sentence is the most effective and fairest way to motivate, differentially manage, appositely place inmates into activities, review behaviour change and assess risk.

The system requires inmate activity supervisors and landing officers to specify areas of attainment within their domains of supervision (education, laundry, textile workshop etc), along with attainable skill levels within those areas. These criteria are then set out on Regime Management forms (RM-1s).

This combination of attainment areas & criteria are printed onto standard behaviour checklist blanks (SM-1s) which are routinely completed by supervisors to assess individual inmates’ levels of attainment relative to the demands of the specific activity they supervise.

These regular measures of positive attainment provide a concrete basis for open reporting and fair and openly defensible allocation of privileges. The fact that the system is based on positive measures of cooperation ensures that staff and inmates can work on a greater range of behaviours than that covered by exclusive reliance on the Governors Report system.

Sentence Management is a simple and flexible system whereby positive attainment data is collated at a central point each week. The forms are machine read into a database which is programmed to:

- generate profiles of behaviour;
identify inmates for specific programmes and targets on the basis of their profiles,
readily show how any one inmate performs relative to his peers.

Observations of behaviour (skill acquisition) are processed through a flexible system of behaviour checklists (read by an Optical Mark Reader) in conjunction with a small database management and reporting system. The database generates reports on the behaviour of all inmates in an activity area, making it immediately clear to supervisors not only how inmates perform relative to preset demands of an activity, but also how they behave relative to their peers.

The ease with which Sentence Management generates a wide range of comprehensive reports makes it a powerful, and cost effective Management Information System in support of an accountable regime and effective inmate management. Automated reporting brings a degree of standardisation and fairness to inmate reports whilst freeing staff time considerably beyond that required to complete the observation checklists upon which they are based.

Whilst routine recording of attainment provides standard baseline data on how the regime is operating (as aggregate measures of inmate behaviour), the process of target negotiation and contracting between staff and inmate (effected through the use of SM-2 forms) provides the means whereby staff and inmates can actively bring about change by working to change the statistical group the inmate belongs to. The routine collection of SM-1 data enables managers to monitor progress of SM-2 based behaviour contracts. Sentence Management has been implemented in several establishments and has proved to be a natural framework for the implementation of Incentive Schemes. Attainment data is an essential component of any incentive scheme, since attainment must be used to allocate inmates to privilege levels within differential regimes. The system is fundamentally actuarial, providing managers and inmates alike with a practical infrastructure for effective sentence, regime and population management on the basis of the group that an inmate falls into. In 1993, the system was successfully piloted in support of Sentence Planning at HMP Parkhurst, and in the first half of 1995, it was used in support of an Incentives and Privileges pilot project at HMYOI Feltham. It is now under extensive development at HMP Garth, and to a lesser extent at HMP Wandsworth where data suggests that it is reducing Governor's Reports.
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