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Abstract

In this article, the authors present an evaluation of a new high-tech jail in the Netherlands. The prison is built around a number of significant innovations, such as inmates staying in six-person cells, inmates wearing electronic wristbands to track their movements, and guards being equipped with handheld devices to monitor trouble. According to the public authorities, the prison is seen as the future of correctional facilities: cheap and efficient, while at the same time not coddling criminals or violating their fundamental rights. The subject of the present study is employee effectiveness and safety in this new type of prison.

Keywords

high-tech prison, Netherlands, electronic tracking, employee effectiveness

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Introduction

In this article, we present the evaluation of an experiment within a new Dutch prison, Code name DCL (DCL). DCL is part of a new policy of the National Agency of Correctional Institutions (*Agency* henceforth), that is, “The New Institution” (DNI), which focuses on improving the quality and effectiveness of the penal system. One of the new policies introduced in this context is to create differentiated prison regimes for different target groups. For each target group, a different type of daily program, security measures, and treatment has been developed.

DCL is a prison for short-term male detainees. They should have a (remaining) sentence of not more than 4 months after initial conviction, and detention is aimed at the enforcement of their imprisonment or custodial measures and providing practical support to prepare their return to society. The prison was built mid 2005. It is embedded in a larger regular prison organization (referred to as “the mother organization” henceforth). DCL is staffed with a team of 15 correctional officers (or *penitentiair inrichtingswerkers*, *piw-ers*, as they are officially called) and 1 supervisor. On every single day (from 7 a.m. to 5 p.m.) six officers are on duty. They work in teams of two. During the day, these teams alternate between three tasks, that is, overseeing the detainees’ chores, inspecting the detainees’ activities, and managing the daily activities from a control center. The first detainees arrived in January 2006. In total, 150 inmates (on average) are imprisoned in DCL. Detainees are screened before entering DCL. Only inmates who are considered to function in group cells are accepted.

The official aims of DCL are to increase prison safety, while at the same time decreasing prison costs. Our research is not focused on cost efficiency in the new prison system (this is also still an issue of discussion within the Ministry of Justice itself, and they are still studying *and* discussing the costs of DCL). In this article, we will concentrate on prison safety and—as a proxy measure of costs—the effectiveness of the employees in DCL. We focus on the impacts the introduction of innovative elements has in this new prison system.

DCL is a particularly interesting case to study for several reasons. First, it discusses a particular class of prison innovations and its consequences. Second, our research adds to several topics in the prison literature. Specifically, we contribute to a number of issues such as the question about the relationship between prison environment, officers’ level of commitment, and prison performance (Paoline, Lambert, & Hogan, 2006); the consequences of increasing the level of officers’ *and* detainees’ discretion (Hawkins, 1986; Hewitt, Poole, & Regoli, 1984; Klein, Petersilia, & Turner, 1990; Wilbanks, 1987, as cited in Freeman, 2003); and the intended and unintended effects of introducing new electronic devices in prisons. Third, we introduce a particular type of research

Figure 1. A Panoptic prison design
Note: Picture taken from Michel Foucault (1981).

method, that is, process tracing (cf. George & Bennett, 2005). It is a demonstration of how research can be conducted in a rather complicated setting and how causal inferences can be drawn from a single case study.

We start this article by depicting the basic innovative aspects of DCL. Then, our research method is introduced. Next, we present an explanation for the achieved level of employee effectiveness and prison safety. Finally, we discuss some practical consequences related to the implementation of this particular type of prison system.

DCL: An Innovation in the Dutch Prison System

DCL introduced four major innovations: six-person cells, a behavioral approach toward the inmates, sophisticated electronic control devices, and a self-managed team of correctional officers. In what follows, these basic elements of DCL are described.

First, six detainees share one cell rather than having one prisoner per cell, which is a common practice in Dutch prisons (see Figure 1).

Cells are furnished with three bunk beds. A *touch screen* is attached to every bed by which detainees can watch television, listen to radio, make phone calls, and do their shopping. Moreover, with this screen they also schedule their daily activity program. Furthermore, every cell has two toilets, one shower, a washing machine, a drier, and a dining table with six chairs. Finally, cells have a kitchen equipped with cookware (including a microwave oven, pans, and cutlery). Detainees are personally responsible for heating their meal, washing their clothes, and cleaning their cells. They can leave their cells during the daily activity program of which some are mandatory (e.g., cleaning the cells, educational workshops²), whereas others are voluntary (e.g., sports, recreation, spiritual aid). However, detainees are locked in their cells when the officers have a collective meeting and between 5:00 p.m. and 8:00 a.m.—when the officers are off duty and security guards take over.

Nevertheless, the issue being highly controversial, the Agency decided to use “group cells” for a number of reasons. First, the average costs per prisoner per square meter are expected to decrease for group cells. Moreover, fewer officers are expected to be needed because it is expected that detainees help each other in their group cell; inmates are expected to be positively socialized or prisonized (Clemmer, 1958; Silberman, 2007) within the group of the six-person cell. Consequently, they are expected to behave appropriately and hygienically as a result of the group pressure (e.g., detainees not accepting dirty roommates and demand that showers are taken). As a consequence, it is expected that the need for face-to-face interactions between inmates and officers decreases substantially, because officers do not need to stimulate proper behavior.

Second, a behavioral approach is used to influence the prisoners’ conduct. The basic principle here is that each detainee is responsible for his own behavior and is confronted with it. They have to take care of buying their own necessities (such as snacks, magazines, and tobacco) from the prison shop using their touch screens. Detainees need to pay these using a personal prison account. On this account, money can be transferred by the prisoner or their family. In addition, they can earn money (a maximum of €5 per week) for obeying rules and thus increase credit to watch more television or get more channels. They can also earn more phone calls, longer visiting hours, or even “buy” a switch to another room. Detainees breaking rules are punished by being denied this bonus. By means of their individual touch screens, as mentioned above, detainees are expected to plan their own daily activities in advance. Inmates who are considered to behave extremely well are rewarded

with a job as concierge: they clean the halls, do the weeding, and provide the lunches, thus earning extra money.

The objective of this behavioral approach is to increase the level of a prisoner's discretion. Granting an individual choice between behaviors that lead to rewards (money) and behaviors that do not lead to such rewards (accepting a loss) is the elementary governing mechanism. It is a replacement for detainees' general education and working activities, which are considered by policy makers to be too expensive and unsuccessful for this group of short-time detainees. It is believed that making the detainees responsible for their own conduct would contribute more to their rehabilitation in a society in which people are expected to be responsible for their own behavior. Moreover, the policy makers expect that rewarding good behavior with a small amount of extra does in addition stimulate the socialization process. As a result, the caseload of the individual officers is expected to decrease.

A third distinctive element of this prison is the usage of sophisticated electronic control devices. Detainees wear electronic bracelets for a tracking-and-tracing system. Through radiofrequency identification, the detainees can be located, and it can be checked whether they violate rules or not. Moreover, half the cells' common rooms are also equipped with aggression detectors. Prison workers have palmtop computers that provide personal information on every inmate in DCL. Finally, a closed-circuit camera is in place to view all cell doors, the common areas (central hall, sports, education, and recreation room), and the blind spots in and outside the building.

In contrast to the group cells and the behavioral approach, the introduction of these electronic devices does, however, not imply a fundamental shift away from regular prison practices. It is rather an elaboration of the more common *panopticum* idea (see Figure 2 and 3). The basic idea is that it provides officers the opportunity to optimize their level of control from a central tower (or control center).

The idea is that detainees' and officers' safety is guaranteed, whereas at the same time less officers are needed. Moreover, such a *panopticum* not only acts as a safety device but also as a mechanism of social disciplining (see Foucault, 1975). The fact that inmates, in principle, can be secretly observed continuously (for instance by means of the radiofrequency identification system) is believed to produce proper behavior, especially because behavior is linked to inmates getting or not getting the weekly bonus. In other words, it is believed that the introduction of the electronic control devices has positive socialization consequences also.

Figure 2. The ‘panopticon’ at DCL

Note: Picture taken from Detention Concept Lelystad.

Finally, the fact the prison workers work in a self-managed team can also be considered as an important innovative feature. The team consists of 15 officers—of which 6 work on a single day—together with their supervisor.

Regular Dutch prisons—including the one to which DCL is linked—can be characterized as machine bureaucracies (Mintzberg, 1979). The tasks of the correctional officers are specialized, routinized, and formalized. Moreover, power is centralized with supervisors and the general management. Although teams are also present in regular prisons, these have little and only indirect influence on decision making and have very little discretionary space. They are mainly used to inform officers about the new policies and regulations and solve practical problems (Kommer, 1991). In contrast, the officers’ team in DCL has vast decision-making power and discretionary space with regard to policy making, with the supervisor acting as a coach for the team and representing DCL to outsiders, such as the mother organization. Officers in DCL are expected to “make decisions in accordance with personal judgment and conscience instead of rigidly enforcing a law, regulation, rule, or procedure” (Pound, 1960, as cited in Freeman, 2003). Among other things, the team decides on buying new equipment, giving or denying detainees a bonus, and putting a prisoner back to a regular one-person-cell prison if considered as unsuitable for a group cell.

Although this team is a major innovation in a Dutch prison context, it should be stressed that in contrast to the other three innovations described above, it is not part of the official design parameters of the Agency. On the contrary, they had a further enforcement of the machine bureaucracy model in mind. It was said that in this prison design officers needed to act only as

Figure 3. Evaluation research model

routinized safety monitors. The supporting and socialization tasks, which they fulfill in regular prisons, were not expected to be part of their job in this context. As mentioned above, it was believed that the group cells, the behavioral approach, and the electronic control devices will substitute these functions. The idea was that these basic monitoring tasks could be fulfilled by employees in lower salary scales. Interestingly enough, right from the beginning the guards started to work as a self-managed team. Our analysis of this process revealed that they worked as a team from which a new dominant coalition came about (see Cyert & March, 1963), which we refer to as the “team coalition” here. This new coalition—in contrast to the older coalition of officials of the Agency—was composed of the originators of the DCL idea, the project leader who originated from another prison in which he had already been experimenting with a self-managed team, consultants from a private consultancy company, and members of the human resources division of the Agency. This coalition managed to bypass the existing dominant coalition within the Agency, which designed the blueprint for DCL. The main reason for establishing a self-managed team was to increase the effectiveness of the officers. It was argued by the team coalition (and often confirmed by the officers of DCL) that officers in regular prisons felt unsatisfied or were even cynical about their jobs, hid themselves from their duties and

economized their timetables and work schedules. The project leader of DCL concluded from his previous experiences with a self-managed team that working with such a team would increase the level of employee satisfaction and make the officers more productive. The team coalition promoted the idea of a self-managed team by appointing a supervisor whom they knew would be very favorable toward the idea and was competent in creating considerable discretionary power vis-à-vis the mother organization. As it became clear later, the self-managed team played an important role in the success of DCL: It contributed significantly to the high level of employee effectiveness and safety.

Research Method

Qualitative data are the main source of information in this study. We gathered data from secondary documents (e.g., policy documents) for the period from early 2005 (when the plans for DCL were developed) until January 2006 (when the first inmates arrived). We also collected data through participant observations until April 2007. We were regularly present in DCL and participated in staff meetings, breaks, and accompanied the officers during shifts on the prison floor. Consequently, we could observe the officers and their supervisor in their work setting as well as the impact of their behavior. Relevant data emerged from informal meetings with the guards and the supervisor at lunch or during breaks. This provided us with a deeper insight of certain themes, not only factual content but also the respondents' personal and often emotional meanings attached to certain subjects (Baker, 1999). In addition, data were collected through face-to-face semistructured interviews with individual officers and the supervisor. We also conducted two focus group interviews with the complete team and the supervisor to address specific issues and to reveal possible and actual problems related to their work. Finally, we studied policy documents and internal documents regarding DCL (e.g., memo's, minutes of meetings, house rules, etc.).

To discern the factors influencing safety and employee effectiveness, we analyzed the collected data by means of process tracing (George & Bennett, 2005). Process tracing is a (historical based) method to identify the causal chain between an independent variable (or set of variables) and the dependent variable. By observing processes of human interactions and looking for the underlying causal chain of why certain outcomes occur, it is possible to reconstruct the main processes and mechanisms that are at work (George & Bennet, 2005). Process tracing therefore

Figure 4. A cell for six prisoners at DCL

Note: Picture taken from Detention Concept Lelystad.

Source: DIGIT Touch Systems BV, *Sensationeel High Tech*, <http://www.digit.nl/Home/Referenties/Customer+Cases/page.aspx/121>

can come up with identifying single *or different* paths to an outcome, point out variables that were otherwise left out in the initial comparison of cases, check for spuriousness, and [therefore] permit causal interference on the basis of a few cases or even a single case. (George & Bennett, 2004, p. 215)

The causal mechanisms studied are depicted in Figure 4.

The three boxes in Figure 4 represent our empirical foci. The last box represents the outcomes of DCL and is the starting point of our analysis. By means of process tracing we analyze to what extent these outcomes are caused by employee behavior (represented by Box 2) or should be attributed to other factors. The first box represents the innovations described earlier. By tracing back the processes from Box 1 (employee behavior) to Box 1 (innovations), we are able to reconstruct to what extent employee behavior is caused by these interventions and, indirectly, reconstruct what their influence is on the outcomes of DCL.

DCL in Action: Employee Effectiveness and Safety

The detention goals of DCL—retribution, deterrence, incapacitation, and rehabilitation—do not deviate from other Western prison systems (Allen &

Simonsen, 2001). On the basis of the data available, it is hardly possible to judge to what extent these detention goals have been accomplished. But we can stipulate the extent to which employee effectiveness and prison safety have been achieved within DCL. We start with an assessment of employee effectiveness and its causes and then turn to prison safety.

Employee Effectiveness in DCL

According to the general management of the mother organization and the supervisor of DCL, prison workers were willing to work harder in DCL compared with other Dutch prisons. Despite some organizational and technical problems in the new prison (which is presented in greater detail later), they did not become demotivated. They even carried out tasks beyond what was stipulated in their job description and developed new skills to overcome the problems to increase the performance of DCL. Moreover, absenteeism in DCL was lower than other Dutch prisons (7% compared with 12%). In addition, we observed little economization on timetables and work schedules (the prison workers took very few breaks). As a result of the hard work and the low level of absenteeism, less prison workers needed to be employed.

As was expected by the team coalition, the high level of employee effectiveness could at least partly be attributed to the self-managed team. First, the team clearly contributed to prison worker's organizational commitment.

Organizational commitment is generally defined as loyalty to an organization, identification with an organization (i.e., pride in an organization and internalization of the goals of an organization), and a desire for involvement in an organization (i.e., the willingness to make a personal effort for the sake of an organization) (Mowday, Steers, & Porter, 1979). (Lambert, 2004, p. 211)

Rather than hanging around in the team room, detention workers felt collectively responsible for the good performance of the prison. Similarly, the prison workers were convinced that DCL was a success, something they often communicated to each other. They perceived DCL as safer and even friendlier place to work, compared with regular prisons. To prove these positive effects, officers put extra efforts in their prison work (such as producing a self-fulfilling prophecy cycle). Moreover, because of the running of the prison by a small number of prison workers (six plus the supervisor) on a single day, peer pressure was significant.

On the other hand, the self-managed team had also some direct as well as indirect negative effects on employee effectiveness. Especially in the early

stage it decreased work satisfaction, and team meetings were considered unproductive and boring. As mentioned earlier, the prison workers were considered to work in three teams of two, and we observed that within these teams unconstructive discussions took place and work-related criticism by coworkers were often perceived as personal attacks. It seemed that these kinds of problems could be attributed to the lack of experience of the prison workers in a self-managed team, although personal differences also seemed to play a role. However, it turned out that over time the prison workers developed team working skills and also started appreciating personal differences.

Employee effectiveness was also enhanced by the fact that within the six-person cells the inmates became coproducers of their own detention. They helped each other with practical questions and socialized themselves in a positive way in their cells. As a consequence, less prison guards were necessary to run the prison.

Another factor contributing to employee effectiveness was the fact that prison workers were intentionally selected based on their enthusiasm to work in a new prison regime and their ability to cope with setbacks. They were selected in mid-2005 through a formal job interview in which they had to demonstrate that they possessed a number of competencies (skills, behavioral styles, knowledge) such as having a performance motivation, being energetic, and being able to handle details. Moreover, criteria related to enthusiasm to start something new, not being bothered to be under study during the evaluation period (it was known that several researchers would be present to do research in DCL), and being able to cope with setbacks were also considered important assets.

Both the behavioral approach as well as the electronic control devices turned out to have positive as well as negative consequences for the employee effectiveness. As a consequence, detainees were motivated to behave well, were capable of doing their own shopping, and were guarded by an electronic tracking-and-tracing system. All this leads to less time intensity, especially with regard to face-to-face contacts between prisoner and prison worker. Employee effectiveness was, however, also lowered, because of the continuing problems with the electronic control devices (e.g., tracking-and-tracing system and the electronic administration of the bonuses) as well as the related electronic innovations (e.g., touch screens, prison shopping account). Because of these problems, prison workers had to put in a lot of time and energy in coping with these problems, looking for solutions, and calming down the inmates. In addition, prison workers felt frustrated because of the enduring problems with the electronic devices. In their perception, the general management of DCL and the companies responsible for the electronic devices did not put enough effort into the project to solve the problems.

In addition to the technical problems, there were also organizational problems related to the mother organization. The mother organization is responsible for screening inmates to find out whether they can function well in a group cell. When selected they receive at that point their wristband for tracking and tracing and for logging on to their personal touch screen. The mother organization also has the prison shop, the medical support unit, and the detainees' visitor center. These interactions with the mother organization often turned out to be problematic. This seemed to be caused in the first place by the fact that in the original design of DCL no attention was given to the possible consequences of the presence of the new prison in the functioning of the mother organization. Moreover, little initial support existed among the employees of the mother organization, including their supervisors, for this new prison concept. All these problems taken together had a negative effect on the DCL prison worker's functioning. They often lacked the resources to implement the solutions they developed to improve the relationship with the mother organization. In general, employees in the mother organization did not accept that the prison workers themselves were authorized to make decisions, which in a regular prison are reserved for supervisors. When employees of the mother organization signaled that they only wanted to do business with the supervisor of DCL and not with a "simple" prison worker, they felt threatened.

The above problems did, however, hardly cause a decrease in the prison worker's commitment. The supervisor played an important role in this by coaching the prison workers when being confronted with the aforementioned problems. Moreover, the problems with the electronic devices and the communication problems with the mother organization strengthened the team by nurturing an "us-them" feeling. As such, the prison workers were motivated to put extra effort in their jobs in order to show the world that, in spite of these problems, DCL worked.

Prison Safety

When the first detainees arrived (January 2006), safety was the main concern for the prison workers. The first question a prison worker would ask himself before doing anything was if it was the safest way to do it. Other issues, such as hygiene, socialization, and the detainees' well-being, were considered secondary. However, as time passed safety became a less important issue for the prison workers. They generally regarded DCL as a safe and even friendly place to work in. This turned out to be the case because there were only some minor incidents with the detainees. There was only one instance in which a

potential riot could have occurred because of malfunctioning of the telephone system.

A major factor contributing to prison safety was the functioning of group cells. In almost every cell, detainees formed a stable social structure. Inmates not only cooked together and helped each other in practical issues but also socialized with their fellow inmates. It is official prison policy that after having received the wristband and after being escorted to DCL, further explanation the prison house rules is left to the fellow detainees, apart from explaining to them what more to do. For example, when detainees “forgot” to take a shower, they were often asked in a friendly way by their cellmates to take a shower. In one of the cells, detainees even collected clothes from former inmates to dress new inmates when they were not considered to be properly dressed. Inmates also shouldered the responsibility of the other inmates in case they did not follow the cleaning schedule properly. Moreover, sometimes they even made it known that there was drug abuse by their cellmates because of the nuisance it caused in their cell.

Four somewhat related factors could be the reasons for the success of the six-person cell. As already mentioned earlier, detainees were screened on their capacity to function in a group. If considered unable to function in a group cell, they were not placed in DCL. Moreover, if it turned out that an inmate did not fit in his assigned cell, prison workers had the discretion to replace the person. In addition, when guards judged a prisoner to cause a lot of problems (what they called “a bad apple”), they could send him back to the regular prison in the mother organization. The detainees themselves believed DCL was a better place to be in when compared with the regular prisons. The one thing detainees did not like about DCL was the fact that they had little privacy. It became obvious that because of the fact that they considered it a “privilege” to be in DCL, they also behaved better too.

The behavioral approach tends to contribute equally to prison safety. Inmates very much appreciated the weekly credit bonus. As a consequence, they felt strongly motivated to obey the prison rules. As stated above, some of the inmates were employed as concierges in DCL. The job of concierge was popular because of its status and the extra money. Attaining a concierge position also stimulated good behavior among detainees.

Finally, the self-managed team played an important role in contributing to prison safety in three ways. First, because of the discretionary power team members held, detainees could be rewarded and punished more effectively. Moreover, through teamwork, prison workers developed imaginative attention to the process of imprisonment rather than to the product of a safe place for the guards. Prison workers demonstrated more analytical thinking,

developed creative solutions, and used their discretionary power to implement their ideas to improve the organization of DCL. Also, because of working in a self-regulating team, officers socialized themselves to act according to the safety standards, and they also had a professional attitude toward the inmates, which also (indirectly) increased the safety level in DCL.

Discussion

When it comes to the self-regulating team, it turned out that, although the team contributed to a high level of employee effectiveness and prison safety, the Dutch prison system (i.e., policy and administration) was rather skeptical toward the idea of self-managed teams. Although the prison workers, the supervisor, the general management of the mother organization, and a number of policy makers supported the team idea, there still are substantial numbers of policy makers who doubt the effectiveness of the idea of a self-managed team in the context of a prison. They believe that the prison workers could abuse their discretionary power. However, during our period of observation in DCL, we did not observe any abuse of such powers. Their point of reference in making decisions was always linked to the quality of the prison environment. Moreover, whenever problems arose, collegial advice and control functioned as a check and balance.

The introduction of electronic devices produced some interesting paradoxes. The policy makers in the Agency as well as the “team coalition” assumed that the technical functionalities would make life of both the prison workers and the detainees easier. It would help the prison workers to trace the specific location of the detainees (using tracking-and-tracing devices and the cameras installed), inform them about which detainees were not rewarded with a bonus (using their personal digital assistant), and getting a signal when problems arose (by means of the aggression detecting system). Detainees had access to a private phone and television and could order goods from the shop whenever they wanted (by means of the personal touch screens and assuming that they had enough money on their prison account). It turned out, however, that because of this the work of the prison workers increased instead of becoming less demanding. The introduction of advanced technology in DCL induced high levels of expectations among prison workers and the supervisor. However, because the devices did not function as expected, prison workers started improvising in times of “failing technology,”² thus creating “hand made solutions” for unforeseen situations. As a consequence, “failing technology” turned out to stimulate team learning and creative redesign of organizational processes and functions. As a result of this, employee effectiveness and safety increased. Despite *or* because of the technical problems, the prison

workers were even more stimulated to demonstrate that DCL was a success and, consequently, put even more effort in their job.

An important element that stimulated the functioning of the self-regulating team and the performance of DCL was the function of the supervisor. With the help of the "team" coalition" he managed to create a self-managed team among the prison workers. From the start of the DCL pilot, the supervisor was signaling that it was up to the prison workers themselves to decide about almost any issue that would come up. Also, he signaled that he was confident that their own decisions were the right ones and communicated that it is important that prison workers give each other (positive and negative) feedback. When conflicts arose between specific prison workers, the supervisor encouraged these workers to find and come up with a solution themselves. In the first half of 2006, we could often observe that the prison workers very often addressed the supervisor when decisions had to be made. However, over time this looking for approval disappeared and they became much more confident with regard to their own decisions about the processes they developed and the solutions they formulated.

Another interesting issue in the present DCL context is the possibility of the Hawthorne effect, which might play a role here. The Hawthorne effect describes a short-term improvement caused by observing worker performance. Not only were the officers selected (among other things) on their enthusiasm to be part of a new project and to cope with drawbacks, but they also strongly believed that DCL would work and consequently wanted to demonstrate this. The prison workers also seemed to enjoy the intense attention they received from researchers, national and international visitors, and the media, all of who were very interested in this new prison concept.

The present study showed how the new prison concept contributed to employment effectiveness and prison safety. An interesting conclusion is that these aims were often achieved by different means than those envisaged originally. It was often the unintended consequences of the introduction of the concept that led to these results. Anybody transporting this concept to other places (as is the clear intention of the policy makers at the Agency) should be aware that different processes might develop from those described in this "pilot phase" and consequently yield quite different results.

Finally, we are aware of the fact that a single case study, which is the basis of this research, has a number of potential problems (Leonard-Barton, 1990). These can be misjudging the representativeness of a single event (Tversky & Kahneman, 1986) and incorrect inferences in case of measurement errors (George & Bennett, 2005). To address these issues, we have collected data from many different observations. In addition, we were able to collect data from all prison workers, the supervisor, and the general management of the

mother organization. All this implies that we gathered evidence from multiple sources, from different points of view, to address the questions at hand. Bringing together different types of evidence is one way to determine which explanations are accurate and which ones should be rejected (Fetterman, 1989). Furthermore, to increase the reliability of the data, we produced complete and detailed notes. The notes, stemming from the observations as well as from the formal and informal interviews, were transcribed and double-checked by a second researcher. Moreover, the reliability of this research is increased by the presence of several researchers.

Whether DCL can be considered to be the prison of the future can neither be judged on the basis of a single implementation nor on the basis of a single case study. However, based on our research, we can conclude that both employee effectiveness and prison safety were high in DCL. To a large extent, this positive performance can be attributed to the four innovations we addressed earlier—six-person cells, a behavioral approach toward the inmates, electronic control devices, and a self-regulated/managed team. However, our study also shows that human behavior (especially that of the prison workers, the supervisor, and detainees) is of great importance for making these innovations such a success.

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The authors declared no conflicts of interest with respect to the authorship and/or publication of this.

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Notes

1. The purpose of these workshops is to give prisoners practical advice about starting a new life after prison, to make them aware of their responsibilities toward society, and to provide cooperating opportunities on coping with addictions. General education is no longer provided because it is judged to be too costly and unsuccessfully in the treatment of short-term detainees.
2. Cf. The concept of “bricolage” as used by Weick (2001, p. 62): “to use whatever resource and repertoire one has to perform whatever task one faces.”

References

- Allen, H. E., & Simonsen, C. C. (2001). *Corrections in America*. New York, NY: Benziger, Bruce.

- Baker, T. L. (1999). *Doing social research*. Boston, MA: McGraw-Hill.
- Clemmer, D. (1958). *The prison community*. New York, NY: Rinehart.
- Cyert, R.M. & March, J.G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, NJ: Prentice Hall.
- Fetterman, D. (1989). *Ethnography step by step*. Newbury Park, CA: Sage.
- Foucault, M. (1975). *Surveiller et Punir*. Paris, France: Gallimard.
- Freeman, R. M. (2003). Social distance and discretionary rule enforcement in a woman's prison. *The Prison Journal*, 83, 191-205.
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Boston: MIT Press.
- Hawkins, D. (1986). Race, crime type and imprisonment. *Justice Quarterly*, 3, 251-269.
- Hewitt, J. D., Poole, E. D., & Regoli, R. M. (1984). Self-reported and observed rule breaking in prison: A look at disciplinary response. *Justice Quarterly*, 1, 437-448.
- Klein, S., Petersilia, J., & Turner, S. (1990). Race and imprisonment decisions in California. *Science*, 247, 812-816.
- Kommer, M. M. (1991). *De gevangenis als werkplek* [The prison as a workplace]. Arnhem, Netherlands: Gouda Quint.
- Lambert, E. G. (2004). Impact of job characteristics on correctional staff members. *The Prison Journal*, 84, 208-227.
- Leonard-Barton, D. (1990). A dual methodology for case studies: Synergistic use of longitudinal single site with replicated multiple sites. *Organization Science*, 1, 248-266.
- Mintzberg, H. (1979). *The structuring of organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Mowday, R. T., Steers, R. M., & Porter, W. (1979). The measure of organizational commitment. *Journal of Vocational Behaviour*, 14, 224-247.
- Paoline, E. A., III, Lambert, E. G., & Hogan, N. L. (2006). A calm and happy keeper of the keys: The impact of ACA views, relations with coworkers, and policy views on the job stress and job satisfaction of jail staff. *The Prison Journal*, 86, 182-205.
- Silberman, M. (2007). The muncy way: The reformatory ideal at the end of the 20th century. *The Prison Journal*, 87, 271-294.
- Tversky, A., & Kahneman, D. (1986). Rational choice and the framing of decisions. *Journal of Business*, 59, 5251-5278.
- Weick, K. (2001). *Making sense of the organization*. Cambridge, England: Blackwell.

Bios

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