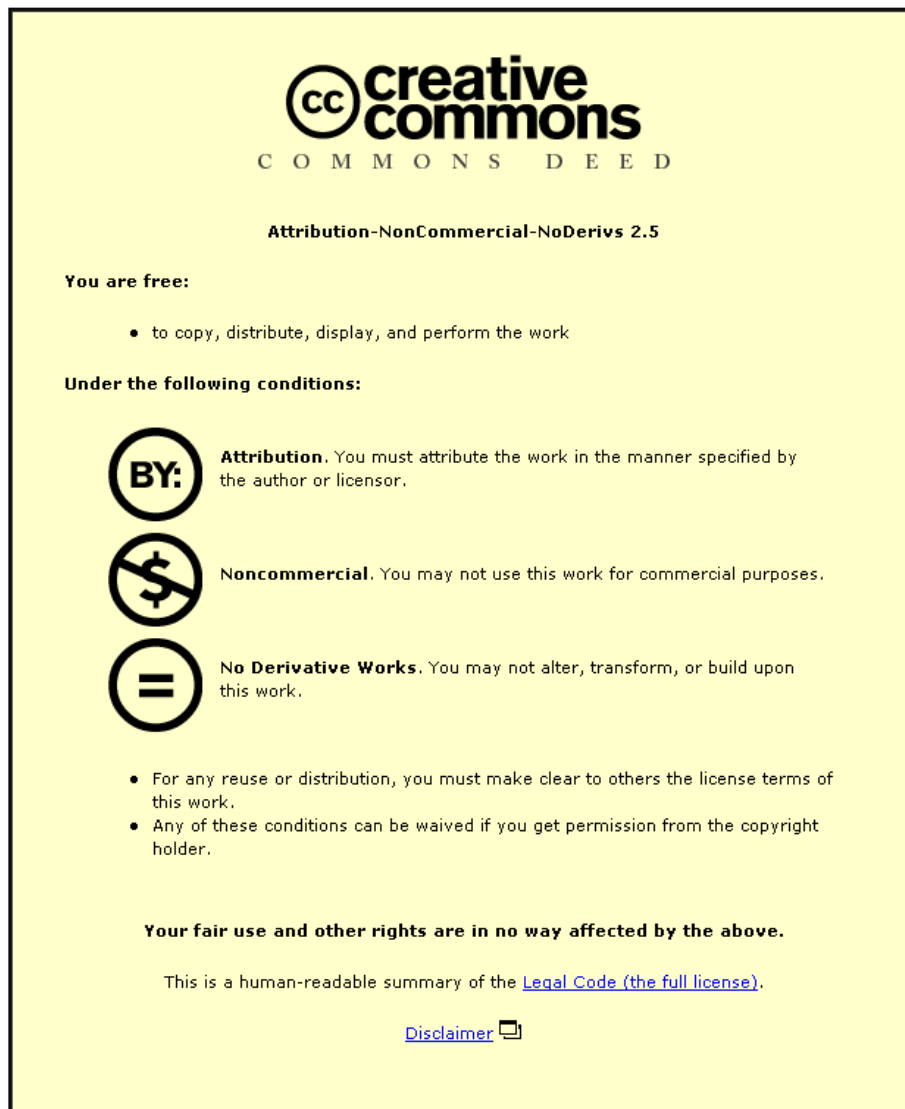


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# WHAT EMPOWERS INDIVIDUALS AND TEAMS IN PROJECTS? A CRITICAL INCIDENT ANALYSIS

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Empowerment is a concept that means different things to different individuals. The factors that engender feelings of empowerment are thus multifarious. The factors that empower individuals and teams in projects settings are the focus of this paper. Using the Critical Incident Technique (CIT), 122 critical incidents comprising 69 empowering and 53 disempowering experiences of 30 purposively selected construction professionals were elicited and analysed. Adopting a broad frame of reference on the premise that empowerment of individuals and teams in project settings is associated with drivers and barriers related to (a) the individual (b) the team context (c) the organization, and (d) the project, mutually exclusive and exhaustive contextual influences within each frame of reference were identified. At the individual-level, *cultural values* and factors related to the *quality of relationships* with leaders and colleagues emerged. At the team-level, *team context* and *leadership style* were the key factors. At the organization-level, factors related to *structure* and *culture* emerged. At the project-level, *project characteristics*, *organization*, *environment* and *technology* related factors impacted the empowerment of individuals and teams. Practically, the study provides targets of concrete interventions by leaders and organizations desirous of fostering empowerment in project teams. Methodologically, this paper adds to previous research in demonstrating the practicality of the CIT in construction specific research and the credibility and trustworthiness checks employed are exemplary of measures researchers using qualitative methodologies can take to assert the credibility of their findings and conclusions.

Keywords: antecedents of empowerment; empowerment; credibility and trustworthiness, Critical Incident Technique (CIT); framework analysis

## INTRODUCTION

Task and role demands have heightened the need to design and use of organisational structures that afford employees the needed flexibility to be more responsive to the changing work environment. The construction industry exhibits certain characteristics that make it an ideal climate for the empowerment of employees (Greasley *et al.*, 2005). Ironically, the Movement for Innovation Working Group on “Respect for People” contends that the lamentable performance record of the construction industry reflects an underutilisation of empowerment, contrary to the popular perception that the industry has often empowered its workforce and project delivery teams (M4I, 2000). That empowerment remains a diffuse and poorly defined concept (Dainty *et al.*, 2002), widely misunderstood (Rudolph and Peluchette, 1993) and predisposed to

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conflicting interpretations in both academic and management practice discourse, may account for its underutilisation. Within the construction industry context, empowerment research is still piecemeal and fragmented. Consequently, the underlying factors that engender empowerment or how empowerment manifests are either unavailable or unreliable. There are, however, noteworthy efforts in this direction (e.g. Greasley *et al.*, 2008, Liu *et al.*, 2007, Tuuli and Rowlinson, *in press*).

Within the extant literature, however, a consensus has emerged that empowerment can be distinctively conceptualised as a *structural concept* and as a *psychological concept*. As a structural concept empowerment is deeply rooted in job design and occurs through objective and often formal organisational changes that grant individuals greater latitude to make decisions and exert influence regarding their work (Liden and Arad, 1996). The psychological perspective on the other hand proposes that empowerment is a constellation of experienced cognitions. According to Spreitzer and Quinn (2001, p. 13-14) psychologically empowered individuals and teams “see themselves as having freedom and discretion (*self-determination*), as having a personal connection to the organisation (*meaning*), as confident about their abilities (*competence*), and as able to make a difference in the system in which they are embedded (*impact*)”. The empowerment process (either structural or psychological) makes huge demands on both the organisation and its members and their respective characteristics can therefore inhibit or foster the empowerment experience. Unfortunately, contexts conducive to empowerment are often poorly defined or understood (Conger and Kanungo, 1988). Despite consistent calls and the acknowledgement by most scholars that perception of empowerment is affected by a variety of individual, interpersonal and contextual factors, no concerted efforts have been made to address this knowledge gap.

Traditionally, contextual factors have been examined from three levels; individual, team (work unit) and organisation. In the construction industry context an additional context exist at the project level which transcends the individual, team and the organisational contexts. Following the suggestions of Zimmerman (1990) and Robbins *et al* (2002) that the empowerment process is best served by an expanded focus on the factors at all relevant levels, this research proposes to explore factors from both the contextual-level (team, organisation and project) and the individual-level. The study was therefore guided by a broad proposition that:

*The empowerment of individuals and teams in project settings is associated with drivers and barriers related to (a) the individual (b) the team context (c) the organization, and (d) the project.*

The identification of factors that impede or engender empowerment experiences is consistent with Conger and Kanungo's (1988) view that the success of any empowerment process is dependent on the identification of conditions that foster powerlessness and their removal. Indeed, research on the conditions that foster versus undermine positive human potential has both theoretical importance and practical significance because it can contribute not only to formal knowledge of the causes of human behaviour but also to the design of social environments that optimize people's development, performance, and well-being (Ryan and Deci, 2000). In the sections that follow, the research method for the study is outlined followed by the discussion of the findings arising. We conclude by outlining the implications of the findings for research and practice.

## RESEARCH METHOD

The interpretive and exploratory focus of this study favours a qualitative approach and the Critical Incident Technique (CIT) was identified as a suitable method to employ. CIT was originally developed in the 1950s by John Flanagan and his colleagues through various studies at the Aviation Psychology Program of the US Army-Air Forces. Essentially, CIT consists of a set of procedures that enable the direct observations of human behaviour or the elicitation of experiences referred to as ‘incidents’. An incident in this regard refers to “any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act” (Flanagan, 1954, p. 327). The analysis of critical incidents so gathered allows for the emergence, rather than the imposition of an evaluative schema and focuses on the events and dimensions of the respondent’s experiences that are most salient, memorable, and most likely to be retold to others (Ruben, 1993). The practicality of CIT in construction research has been demonstrated in several studies (e.g. De Saram *et al.*, 2004, Kaulio, 2008). Its use here therefore arises from its appropriateness for the problem of study and the demonstrated reliability, validity and practicality, especially in construction specific studies.

### Design of Interview

A semi-structured face-to-face interview mode was adopted as it afforded greater flexibility and the opportunity to probe for clarifications and deeper insight. Although retrospective empowering and disempowering experiences were solicited, recollections were less likely to be distorted due to their ‘critical’ or ‘extreme’ nature and the reference to a relatively short time-frame (i.e. within last 6 months) and discrete events (Flanagan, 1954). The respondent’s conceptualisation of empowerment was first sought; thereafter, the main question in the CIT format was posed:

*“Think of a personal experience during a current or recent project (within the last 6 months) when you felt particularly empowered or disempowered in the performance of your work role”* (i.e. the critical incident identifier statement (Campbell and Martinko, 1998)); *“Please describe this experience in as much detail as you can remember”* (i.e. the grand tour statement (McCracken, 1988)).

As the aim was to identify antecedents related primarily to the individual, team, organization and project contexts, the planned prompts and probes (c.f. McCracken, 1988) were employed to elicit information regarding how the context impacted upon the experience, if these were not specifically mentioned in the description of the incident. The above approach was repeated to elicit individual and team experiences.

### Sample and Responses

Sample size in CIT studies is determined by the number of critical incidents required to achieve adequate coverage of the subject of study and this in turn also depends on the complexity of the problem under investigation (Flanagan, 1954). For most purposes, however, a minimum of hundred incidents are considered sufficient (Flanagan, 1954) or incidents are collected until redundancy occurs (Woolsey, 1986). Thirty respondents and a minimum of 4 critical incidents per respondent were targeted (i.e. a pair-wise design of one each of an empowering and a disempowering personal experience as well as one each of an empowering or disempowering team experience). A purposive sampling technique was employed, to maximize quality of information. Ten respondents each from contractor, consultant and client

organisations were selected. Typical targets were site/project managers, engineers, quantity surveyors, designers/architects, etc. This diversity of respondents was to ensure that incidents collected are comprehensive in their coverage of diverse perspectives represented in project settings (c.f. Flanagan, 1954). The respondents comprise 5 females and 25 males and their average tenure in the industry is 9 years. All the respondents are Chinese and have a Bachelors degree or higher.

### **Analysis Strategy**

All the incidents were initially screened for conformance with the basic requirements of a critical incident as spelt out by Anderson and Wilson (1997) as well as Butterfield *et al* (2005). Sixteen experiences were dropped for failing the criticality test. The findings reported are therefore based on the analysis of the remaining 122 (88%) experiences (69 empowering and 53 disempowering experiences). Woolsey's (1986) three-step process guide for analysing CIT data was employed; selection of a frame of reference (i.e. using the individual, team, organisation and project levels as the *a priori* frame of reference), formation of categories (i.e. using "framework analysis" to identify mutually exclusive and exhaustive categories), and establishing the level of specificity-generality to use in reporting the findings (i.e. limited to two levels).

### **Credibility/Trustworthiness Checks**

Several credibility checks for CIT as recommended by Butterfield *et al* (2005) were employed. First, the incidents were screened for criticality while the credibility of the category formation (themes) was cross-validated by a colleague acting as an independent judge. There was a 97% agreement between the author's earlier placement of the statements in a sample of critical incidents (i.e. 25%) and that by the independent judge. The coverage rate of the antecedents was also checked by calculating the frequency of the incidents that cited a particular theme. Borgen and Amundson (1984) suggest a coverage rate of 25% or higher for a category to be considered valid. Using this benchmark, 18 (64%) of the 28 categories substantially pass the threshold while 10 are barely valid as their coverage rates range between 22 and 30%. The distribution of the antecedents according to the organisation role of the respondents was further examined. Although client respondent's described fewer categories (79%) compared with 93% for both consultant and contractor respondents, this did not seem to have introduced any biases.

An attempt was further made to demonstrate the theoretical validity of the categories by checking the presence or absence of agreement between the descriptive or interpretive terms used and theoretical constructs in the extant literature in the discussions. The descriptive validity of the study was maintained by working directly with the verbatim transcripts of the interviews and further demonstrating the grounding of the categories in the responses by providing sample quotes in the respondents own words for each theme identified (see last column of Tables 1 to 4). Lastly, interview fidelity was ensured during the interviews by requesting the critical incidents in as consistent a manner as possible and only using prompts and probes for clarifications and the achievement of deeper insight of empowering or disempowering experiences. The application of the credibility and trustworthiness checks addressed calls on researchers to utilise qualitative methods with demonstrated rigor so as to establish confidence in their findings and conclusions.

## FINDINGS AND DISCUSSIONS

### Individual-level Antecedents of Empowerment

The individual-level antecedents of empowerment are shown in Table 1. In general, they relate to *cultural values*, *quality of relationships*, *work experience* and *rank in the organisation*. Three individual-level antecedents particularly stand-out as most recurrent; quality of relationships with leaders and colleagues, work experience and openness. The prominence of quality of relationships in this mainly Chinese sample is not surprising given the influence of Confucian values and the emphasis on harmony and conflict avoidance. The social networks or interpersonal connections in Chinese contexts are captured under the notion of “*guanxi*” which is perceived as an important ingredient in successful business and socio-economic endeavours (So and Walker, 2006). Harmonious relationships may therefore be a key element in the creation of an enabling environment for empowerment to occur. The emergence of work experience also reinforces the apparent link between work experience and competence in engendering feelings of empowerment. As Bandura (2001) points out “the exercise of effective control requires mastery of knowledge and skills attainable only through long hours of arduous work”. Organisations and leaders are therefore more likely to entrust greater power and responsibility to more capable and experienced employees who are also more likely to welcome it (c.f. Greasley *et al.*, 2008).

Openness as an antecedent, relates to ‘openness of experience’ which reflects intellectual curiosity, aesthetic sensitivity, liberal values and emotional differentiation (McCrae, 1987). Viewed in this manner, openness is also related to the cultural value of low uncertainty avoidance which reflects a predisposition to ambiguity and uncertainty (Hofstede, 1980). The emergence of openness as a key individual-level factor reiterates the universality question surrounding empowerment. Individuals from high power distance or high uncertainty avoidance cultures are known to react to highly empowering climates with feelings of stress and withdrawal rather than with feelings of a sense of meaningfulness, competence, self-determination or impact (Seibert *et al.*, 2004). Organisations must therefore take into consideration employees’ predisposition to power and ambiguity when promoting empowering strategies (see the respondent’s comments under *predisposition towards power* theme in Table 1).

Table 1: Individual-level antecedents

Antecedents	Description	Manifestation in Critical Incidents
Work experience* Can do attitude*	Work experience and knowledge. Hardworking, proactive and persistent attitude.	<i>“I think empowerment is subject to a person’s work experience and knowledge”</i> [Engineer, Client]. <i>“Having a proactive or can do attitude combined with quick decision-making attitude contributed.”</i> [PM, Contractor].
Predisposition towards power** Openness*	Being comfortable or not with power, knowing how to use power positively. Openness, ability to cope with different pressures.	<i>“delegation and power are very important, but subject to the person being comfortable and knowing how to use it and contribute to achieve targets”</i> [PD, Client]. <i>“As I am open and positive, I will take it easy especially if I have used the system before”</i> [Snr Engineer, Consultant].
Positive attitude* Strong personality**	Being positive, always expecting a better outcome. Tough and strong personality.	<i>“We are tough, strong and willing to work, which was an asset”</i> [Snr Engineer, Consultant].
Rank or position* Tenure**	Rank or position in organisation or team. Length of time spent in the company.	<i>“I am a team leader of a group of 13 engineers which was helpful in this instance”</i> [Snr Engineer, Client]. <i>“Some of them have worked with our company previously and some are newly recruited and these had their</i>

Quality of relationships*	Cooperation, mutual trust and understanding, high team spirit, teamwork.	<i>advantages and disadvantages</i> " [Site Agent, Contractor]. <i>"the morale, the mutual understanding, the cooperation and hardworking attitude of the respective members also played a very, very important part"</i> [QS, Contractor].
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Notes: \*Coverage rate substantially > 25%. \*\* Coverage rate not substantially > 25%.

### Team-level Antecedents of Empowerment

Table 2 depicts the team related factors; *team size*, *support from colleagues*, *leadership* and *nature of task demands*. In general, social interaction encapsulates the team-level antecedents and thus, mutually reinforces quality of relationships identified at the individual-level. Leadership was the most recurrent theme at the team-level and together with nature of task demands could be interpreted as positive and negative leadership behaviours, respectively. This is expected, given that leaders are the conduits through whom employees interpret organisational practices and policies, a view supported by the recent findings of Greasley *et al* (2005).

Table 2: Team-level antecedents

Antecedents	Description	Manifestation in Critical Incidents
Team size*	Number of individual members in the team	<i>"with a group of 13 engineers we had a full team"</i> [PM, Contractor]
Support from colleagues*	Support, backup behaviours.	<i>"Operation team gave full support by providing information"</i> [QS, Contractor]
Leadership*	Credibility of leaders, strong leadership, flexible managerial skills, creation of a clear direction.	<i>"the manager's managerial style is flexible, which was important in this circumstance"</i> [Project Engineer, Client]
Nature of task demands*	Unreasonable demand or request to undertake task.	<i>"there was an unreasonable task ordered by our seniors and that would inevitably force our team to work on public holidays or overnight even though we had already expressed our strong protest. It gave me a sense of disempowerment."</i> [Resident Engineer, Consultant]

Notes: \*Coverage rate substantially > 25%.

Table 3: Organisation-level antecedents

Antecedents	Description	Manifestation in Critical Incidents
Enabling work environment*	Opportunities for development and advancement, positive organisational experience.	<i>"I think that the manager and organisation's environment allows for staff development and advancement. This creates a positive organisational experience in which people feel capable and confident"</i> [Site Agent, Contractor]
HR Practices*	Recruitment practices, capacity to employ and retain competent staff.	<i>"it is a prerequisite that the organization must have sufficiently large enough capacity to employ the required competent engineers"</i> [Project Engineer, Client]
Incentives and remuneration levels*	Provision of incentives, remuneration levels to retain workforce.	<i>"the remunerations that the organization can offer in order to maintain the work force is also essential"</i> [Project Architect, Consultant]
Top management involvement**	Level of top management involvement, strategic problem solving.	<i>"[Top management] can use a comparatively more effective way to solve the problems. The way is to ask the senior level as high as possible to handle the cases"</i> [Project Architect, Consultant]
Level of rule-following*	Following laid down procedures, handbooks, instructions.	<i>"we rely on the Project Administration Handbook..... which gives us the guidance, ..... Project Administration Handbook which has very detailed procedures, how a project engineer should manage the job, establish the procedure, standards, as well as some standard letters, guidance for us to follow"</i> [Snr Engineer, Client]

Notes: \*Coverage rate substantially > 25%. \*\* Coverage rate not substantially > 25%.

## Organisation-level antecedents of empowerment

Several organisation-level factors were identified; *enabling work environment, HR practices, incentives and remuneration levels, top management involvement and level of rule following* (see Table 3), encapsulating two broad organisational features; *culture* and *structure*. These features reflect the structural and systemic factors that regulate the way things are done in organisations. The literature on empowerment is replete with views on how the structure and culture of an organisation can inhibit or encourage the empowerment of individuals and teams. Robbins *et al* (2002, p. 420) go as far as to suggest that “the most critical step in the empowerment process is the creation of a local work environment within a broader organisational context that will provide both an opportunity to exercise one’s full range of authority and power (i.e., empowered behaviours), as well as the intrinsic motivation within employees to engage in that type of behaviour (i.e., psychological empowerment)”.

Table 4: Project-level antecedents

Antecedents	Description	Manifestation in Critical Incidents
Information processing**	Attention to details, information coordination with stakeholders.	<i>“Every piece of design information needs to be gone through in a lot of design coordination meetings with different parties involved in this project internally and externally”</i> [Resident Engineer, Consultant]
Stakeholder configuration**	Number of stakeholders (internal and external).	
Organisation's role on the project*	Type of service provided, organisation's role.	<i>“On this project, we are the main-contractor, so we have a lot of say on how to proceed with the work”</i> [PM, Contractor]
Common goal or vision*	Clear direction, common objective.	<i>“a common objective is very important to ensure a clear direction for members to complete the project”</i> [Project Director, Client]
Project lifecycle**	Project lifecycle.	<i>“the work is pretty intense now, compared with six months ago when we just started, there is no relaxation now”</i> [Snr Engineer, Contractor]
Project pace*	Tight project schedule, demanding requirements, fast track.	<i>“This is a mega scale and fast track project and always has no firm information and requirements available timely”</i> [QS, Contractor]
Project priorities**	Emphasis on time, schedule, cost, prestige.	<i>“The project is time and cost oriented”</i> Snr Engineer, Consultant]
Project size**	Mega scale, large in scale.	<i>“This is a mega scale and fast track project and the consequences of that are clear”</i> [QS, Contractor]
Project type**	Project type e.g. infrastructure, a building, Casino.	<i>“As this is a Casino project, so there is a lot of emphasis on quality of work and finishing the job as soon as possible”</i> [Project Architect, Consultant]
Uncertainty**	No firm information or requirements, ever-changing demands.	<i>“This is a mega scale and fast track project and always has no firm information and requirements available timely”</i> [QS, Contractor]

Notes: \*Coverage rate substantially > 25%. \*\* Coverage rate not substantially > 25%.

## Project-level antecedents of empowerment

The project-level antecedents are depicted in Table 4; *level of information processing, common goals or vision, organisation’s role on project, stakeholder configuration, project pace, project priorities, project lifecycle, project type, project size and uncertainty*. These antecedents mirror the contingent factors of empowerment identified by Hammuda and Dulaimi (1997). Project pace was prominent and this is hardly surprising given the Hong Kong construction industry’s reputation for fast-track construction, characterised by tight schedules, demanding project requirements and no relaxation. However, while some perceived project pace as inhibiting empowerment, others perceived it as a driver in the devolvement of decision-making



authority to the site level. The former view highlights Williams' (1997) assertion that in situations of high risk in project settings, centralised risk management frameworks emerge which are centrist and authoritarian in nature and thus, incompatible with empowerment. The organisation's role on the project was also a recurrent factor and is often dictated by the type of procurement arrangement in use. Newcombe (1996) outlines the different power configurations that characterise different procurement arrangements and the resultant empowerment perceptions of participant organisations. The project-level antecedents add a unique feature to this study. While the individual, team and organisation levels have been the traditional sources of factors perceived as impacting empowerment, the findings here suggest that characteristics of the task being undertaken may be key drivers or inhibitors of empowerment.

## CONCLUSIONS AND IMPLICATIONS

Empowerment means different things to different individuals as a result of the different socialisation and the varied interpretations individuals make regarding actions, policies and practices within their work environment. As Spreitzer and Doneson (2008) point out, in some situations an empowering climate exists, yet employees still evince disempowerment, and in other situations all the objective features of an empowering work climate are absent, yet employees feel and act empowered. Just as the meaning of empowerment differs from individual to individual, the antecedents that engender feelings of empowerment are consequently multifarious. The diverse antecedents therefore demonstrate the complexity in the implementation of empowerment strategies and the myriad of perspectives that must be taken into consideration.

These findings have several implications for theory and practice. The different and evidently reinforcing antecedents from four different contexts suggest that a piecemeal approach to the implementation of empowerment is a recipe for failure. This study therefore echoes loudly the role of "context" in empowerment perceptions. In accord with Spreitzer (1997), empowerment is an interaction of *person* and *situation*. A contextual fit is thus essential for empowerment to take place. For organisations and leaders desirous of empowering employees and the study provides concrete targets of intervention at the individual, team, organisation and the project levels. While previous studies have emphasised the importance of the individual, team and organisation contexts, this study shows that the characteristics of the task (i.e. construction project in this case) can equally inhibit or engender the experience of empowerment. Methodologically, this study adds to the work of De Saram *et al* (2004) and Kaulio (2008) in demonstrating the practicality of the CIT in construction specific research. The credibility and trustworthiness checks employed are exemplary of what qualitative researchers can do to assert the credibility of their findings and conclusions.

The study, however, has several limitations which deserve highlighting. First, the respondents in this study were purposively selected partly because of their willingness to share their experiences. It is therefore plausible that they demonstrated higher levels of awareness of their level of empowerment or disempowerment and the conditions that perpetuate such feelings. There is also the possibility that respondents misunderstood the phenomena they were required to describe. A further potential limitation is the problem of verbal skills and the amount of verbalisation respondents are capable of within the interview period. This is particularly pronounced as the interviews were conducted in English which is not the primary language of the

respondents. The requirement of respondents to recall incidents and describe them in as much detail as possible may have overburdened some respondents.

These limitations however highlight fertile avenues that future research might pursue. First, replications of this research with improvements in the research design to address the limitations outlined above will advance research and practice in this area. Second, future research employing quantitative approaches could assess the levels of the antecedents identified here and their impact on the empowerment of individuals and teams using larger samples to ascertain the extent to which these findings generalise. Finally, this study provides crucial insight into the factors that influence empowerment in project settings and should therefore contribute to a better understanding of what empowers project participants and how to foster empowerment in construction project organisations.

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