

## Using Communicative Action Theory to Analyse Relationships Between Supervisors and PhD Students in a Technical University in Sweden

Michael Christie<sup>a,\*</sup> and Ramón Garrote Jurado<sup>b</sup>

<sup>a</sup>University of the Sunshine Coast, Australia; <sup>b</sup>Stockholm University and University of Borås, Sweden

In this paper the authors use the theory of communicative action (Habermas, 1984-6) to analyse problematic relationships that can occur between supervisors and PhD students, between co-supervisors and between the students themselves. In a situation where power is distributed unequally, instrumental and strategic action on the part of either party can complicate and disturb efficacious relationships. We use Flanagan's critical incident technique (Flanagan, 1954) to analyse twenty-five incidents that are told from a supervisor perspective and twenty-five from a PhD student perspective. The analysis reveals that a large proportion of incidents involved power struggles. Other categories include lack of professional or emotional support and poor communication. Rational dialogue based on Habermasian principles might have avoided many of these problems. The analysis concludes with some practical suggestions as to how the use of communicative action theory and critical incident technique can improve supervision, supervision training and the PhD process.

*Key words:* Supervision of research education; communicative action theory; critical incident technique; transformative learning; power conflict and resolution; rational dialogue.

### INTRODUCTION

The aim of this paper is to analyse data collected from 50 supervisors of PhD students to better understand the type of relationships that occur between supervisors and students, between co-supervisors and between the students themselves. Our hope is that a case study such as this can raise awareness among those involved with the PhD supervision process. In undertaking this study we assumed that both supervisors and students could benefit from the successful defence of a PhD thesis. PhD students have the opportunity to continue a research career within academia or industry, and supervisors can enhance their reputation, earn money for their departments, improve their chances of promotion and are more likely to obtain further research funding. In a situation where both parties agree to a legally binding study plan that has mutual benefits, it is logical to expect a high degree of cooperation and a minimum amount of misunderstanding and conflict. An analysis of the critical incidents, half told from a supervisor's perspective and the other half from a student perspective, revealed that this is not necessarily the case. A number of incidents revealed conflicts that were grounded in power struggles between supervisors and students, among the supervisors themselves or between fellow students.

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\* Författarkontakt: michael.christie@usc.edu.au

#### CONCEPTUAL FRAMEWORK – COMMUNICATIVE ACTION THEORY

The authors used Jürgen Habermas's communicative action theory (1984-1986) as a conceptual framework for analysing the data. Habermas argues that the natural purpose of all speech acts is mutual understanding. In the constructed world of human interaction however, that aim can be subverted. Habermasian theory suits our research method, which is exploratory in nature, because Habermas himself is someone who sees his theory as a work in progress. He builds on Weber's action theory but rejects his over-emphasis on purposive-rational action. Weber argued that instrumental reason has enabled us to build well organised and functional social and political structures but in the quest to gain control over people and the natural world, those with power and money have constructed an 'iron cage' of reason (Eriksen and Weigård, 2003, 22). Habermas is more optimistic, arguing that humans have evolved the ability to reach understanding via rational discourse. As mentioned above, this ability is embedded in the very act of speech (Habermas, 1984, 1:15) and, given the right circumstances, can act as an antidote to the misuse of power. We use Mezirow (1991) and his modified version of Habermasian principles to define rational dialogue or discourse. Characteristics of rational discourse include:

- a willingness to accept informed, objective and rational consensus as a legitimate test of validity
- an ability to weigh evidence and assess arguments objectively
- freedom from coercion or distorting self-deception
- complete and accurate information
- an openness to other points of view
- an equal opportunity to participate
- critical reflection of assumptions

Habermas has his roots in critical theory and argues that rational dialogue is a means by which we can improve the human situation. As a modernist he sees the Enlightenment as an unfinished project, one whose ideals of equality, liberty and fraternity should be defended against post-modernist attack. Despite legitimate criticism by post-modern, post-structural and feminist scholars – the use of 'fraternity' as a catch cry is an obvious target – Habermas continues to support the spirit and intention of the Enlightenment.

Habermas refers to different types of action that are motivated by different types of reason. He labels his first category strategic/instrumental action. This type of action can countenance unilateral, non-inclusive means when the end is considered important enough. Quite often power and money tend to steer the process. Communicative action seeks common understanding and agreement, via a process of rational discourse, in order to achieve a mutually acceptable end. In communicative action all parties are given a fair hearing. According to Habermas 'the system-world', that includes the market, government and non-government organizations, has been increasingly characterized by strategic/instrumental action. Habermas does not exclude the use of communicative action in the system world but is concerned that instrumental reason and action, which is most often found there, is seeping into and contaminating both the public and private spheres of 'the life-world' (Eriksen and Weigård, 2003, 101). It is ultimately the 'lifeworld', in democratic societies, that has to be responsible for keeping the 'system-world' honest. In our the particular case the 'lifeworld' of PhD research supervision comprises both

public and private spheres and at times the line between professional and personal behaviour can be blurred. Rules and regulations and the PhD defence are very public things but the supervisory relationship itself can become a very personal matter.

Supervisors and PhD students are part of an institution that, in the west, has been evolving for over 2500 years. The various research schools that were formed by the free association of scholars in Greece, from the 5th century BC on, embody the ideals of Higher Education. Their research was to advance scientific knowledge and improve the human condition. In this context one could consider Plato an ideal supervisor and Aristotle a fine PhD student. The Greek schools were, however, far simpler organisations than those that help make up the complex network of western universities that we have today. In the twenty first century most universities are steered by traditions, by-laws and regulations and many are legally tied to the apparatus of state government. Postgraduate education is controlled by rules that dictate how students are supervised and examined. As Sinclair's research (2004) suggests, different disciplines induce different styles of supervision. In the natural sciences supervisors and students often work in teams whereas in the humanities it is more common that one or two supervisors will be responsible for an individual student who works on a topic of his or her choice. Handal, Lauvås and Lycke (1990) point out that different disciplines also affect the attitudes of teachers within such 'academic tribes' (Becher, 1989) in terms of their attitudes and acceptance of educational phenomena. Their encounters with members of some 'tribes' indicated that teaching and learning methods that were highly prized in the education discipline did not always find ready acceptance among natural scientists. In this case study most of those who wrote incidents were supervising engineering PhDs. The exception was a small percent who supervised higher degrees in architecture, business and informatics.

#### RELEVANT LITERATURE

Given the context of our study two sources of Swedish research are particularly relevant. One is the recent PhD study by Anngerd Lönn Svensson (2007) that looked at experienced supervisors' views on the nature of good supervision. The other source is Jitka Lindén's book, in Swedish, on PhD supervision (1998) and her subsequent journal article in English (1999). In both publications Lindén analyses personal narratives, categorises them and presents a model of good supervisory practice. Like Lönn Svensson, she also uses data gathered from supervisors at universities of technology in Sweden. There have been a number of commissioned studies in various countries that investigate PhD and supervisor perceptions about effective supervision. Sinclair's study, for example, examines the pedagogy of good supervision in the Australian context and differentiates between the quality and results of supervision in the humanities as opposed to the sciences. A series of textbooks, including one by Handal and Lauvås (2008), Delamont et alia (2004) and Wisker (2012) also draw on research-based evidence to identify and make suggestions about sound supervision. Journal articles, for example Gatfield on supervisory styles (2005) and McMorland et alia (2003) on enhancing the practice of supervisory relationships, provide a much wider range of insights into many aspects of supervision, including gender relations, ethical issues, organisational perspectives and pedagogical practices. Conferences on supervision held at the University of Adelaide, Australia and Stellenbosch University, South Africa, are another important source of current research into PhD education. A version of this paper was presented but not published at Stellenbosch in April 2011. In summary a selected survey of the research from the above sources has helped in the design of this study and in particular the choice of research method.

## RESEARCH METHODOLOGY AND METHODS

This qualitative research paper makes use of case study methodology to better understand and obtain insights into relationships within PhD supervision at a technical university. As early as 1952 Goode and Hart (quoted in Punch, 2009) described a case study as ‘a way of organizing social data so as to preserve the unitary character of the social object being studied’. That object can be many things, both simple and complex, which has prompted Miles and Huberman (cited in Punch, 2009) to define a case as ‘a phenomenon of some sort occurring in a bounded context’. The phenomenon in this research is a set of 50 incidents written by supervisors of PhD students. The research method used to collect data for the case study is called the ‘critical incident technique’ (Flanagan, 1954). Flanagan’s technique consists of asking actors or observers to remember and then write down a specific incident that has occurred in a defined setting. Such settings might be teaching, nursing, engineering or the training of teachers, nurses or engineers. The setting can be very focused or very broad. Flanagan’s technique is often used as a means of improving professional practice and the pre-service education of professionals (Corsini, 1964; Andersson and Nilsson, 1964; Christie 1995; Tripp, 1993; and Argyris, 2004). Key steps in using the technique are to define the general aim of the activity being investigated, specify the way in which the incidents are to be collected, categorize and analyse the incidents according to a predetermined set of criteria and interpret and report on the data, keeping in mind any limitations imposed on the research (Christie, 2007, 2-4).

The aim of the activity for this investigation has already been specified in the introduction. The incidents were collected over a six-year period (2004-10) during supervision training courses given to academic staff at Chalmers University of Technology, Gothenburg, Sweden. The course takes place over four days and before attending the third day of the course the participants are asked to write a memorable incident based on their experience either as a supervisor or as a student. They are asked to explain why the incident was memorable and propose ways of remedying problems that occur in negative incidents. They also receive a brief introduction to Flanagan’s critical incident technique (Flanagan, 1954) and are told that incidents can be positive, neutral or negative but what makes them critical is that the specific narratives they write are subject to critique. Permission to use these critical incidents in later teaching and research is sought before participants carry out the task and they are instructed to make the incidents as anonymous as possible. When incidents are later used in teaching and research they are first checked to ensure that there are no personal or other identifying features. If any remain they are removed and details in the incident changed to increase anonymity. For this paper 50 incidents were chosen using length (between a half to one page) as a criterion. The complete database comprises just over 300 incidents.

The task is designed as a transformative learning strategy (Mezirow, 1991; Brookfield, 1987) and the intention is raise the participants awareness of their own particular viewpoints or ‘habits of the mind’ when it comes to supervision. In the course participants write incidents at home and then analyse them in small groups during a workshop. They are asked to determine what each incident is an example of (a form of categorization) as well as hunt some of the assumptions that underlie the incident. The course facilitator does not participate in these discussions or record the results. The plenary discussion focuses on surveying how often certain types of incidents occur, why this is so and, if they highlight general problems, how one might deal with them. Although data from the plenary session were not used in this paper, it did provide the first author

with insights and experiences that assisted him in both the formulation of the research and its execution. For example the plenary discussions often reinforced the fact that the incidents are idiosyncratic versions of the past that can be influenced by a number of factors. Recent versus distant memory is one such factor.

#### CATEGORIES OF INCIDENT

In critical incident technique incidents are normally distributed to a panel of experts who place the incidents in categories that are linked to the purpose of the investigation. For example if the area investigated was 'The qualities of good leadership' the incidents could be grouped by experts into categories that demarcated qualities such as 'decisiveness', 'delegation' or 'conflict resolution'. In this case resources were not available to employ such a panel and we recognise this as a weakness of the study. Since the research is at an exploratory stage it was decided that the authors, who have both an experienced supervisor and student perspective to rely on should decide on the categories based on the recurrence of identifiable themes given our focus on relationships between supervisors and supervised. After a reading of all the incidents four categories were created. They were labelled as follows:

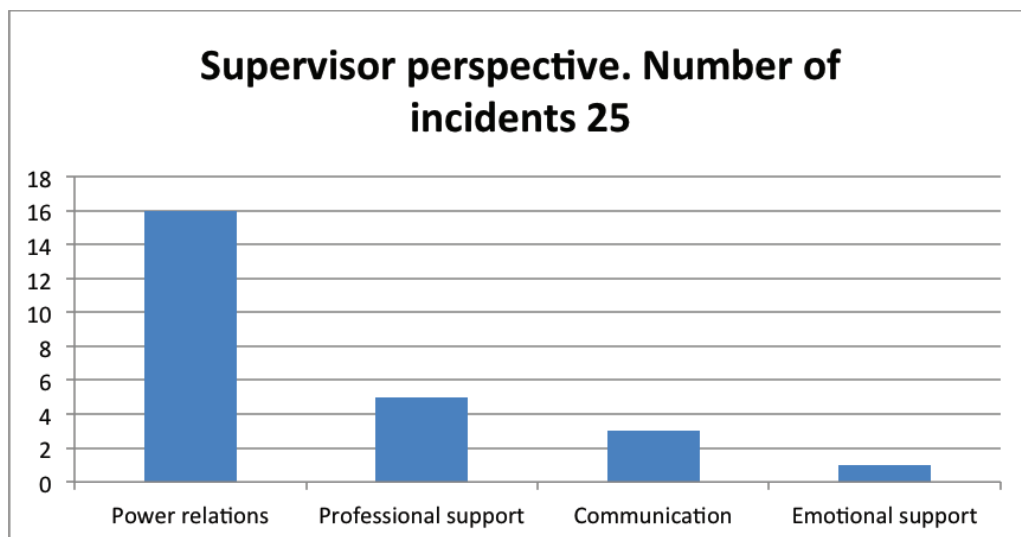
1. Power relations
2. Communication
3. Professional support
4. Emotional support

The difficulty in sorting the incidents was that some incidents could be seen to straddle two or more categories depending on one's selection criteria. For example one incident, told from a student perspective, dealt with how a mature student's positive progress in the PhD was derailed by a difficult divorce. Because of the supervisor's active, intuitive and timely intervention the student was able to regain focus and finish the PhD. We categorised the incident as 'emotional support' since the source of the problem was not an academic one and the supervisor's action was to help the student deal with personal issues that were blocking his/her progress. If one believes that emotional support is an integral part of the supervisor's duties then this incident could be categorized as 'professional support'. In another incident, again told from a student perspective, we had to decide between the categories of 'professional support' or 'communication'. In this incident a main supervisor who was very good at the job was promoted. The new job took all the supervisor's time but this was never really acknowledged or communicated to the student. Clear communication would have helped resolve this situation but we decided that lack of professional support was the main thing that characterised the incident, since it was the supervisor's duty to inform the student and find a replacement supervisor.

When the participants in the course write incidents from a supervisor's point of view their memory of the incident is fairly recent. When they, on the other hand, remember back and write an incident from their time as a PhD student, there is a greater chance that the story has been rehearsed in their mind and that details have been lost or altered. This is a not a problem if we maintain, as we do, that the incidents are individual perceptions of what occurred rather than an objectively recorded event that endeavours to capture an historical truth.

#### ANALYSIS OF INCIDENTS TOLD FROM A SUPERVISOR PERSPECTIVE

An analysis of the 25 incidents written from a supervisor's perspective revealed that 16 concerned issues of power, 5 related to professional support, 3 to communication and 1 to emotional support (see figure 1. below). In the category that we call power relations, action was perceived to be initiated by different protagonists. In the category of professional support the emphasis is on the supervisor since most university regulations stipulate that this is a duty expected of the supervisor. The category of communication was confined to those instances where there was a lack of clarity, information or insight that led to misunderstandings. A deliberate intention to mislead or withhold information in order to gain an advantage was put into the category of power. There was only a single instance of emotional support and it was the supervisor who provided that support.



*Figure 1: Category and number of incidents told from a supervisor perspective*

If we look more closely at the first category we find that of the 16 incidents concerning power 2 were between supervisors, 5 were between students, 5 were between supervisor and student, where the supervisor drove the process, and 4 were between the student and supervisor where it was the student who initiated the incident. In all but one of these incidents the main protagonists acted strategically and/or instrumentally, seeking to achieve their purpose without engaging first in some sort of rational dialogue. In 5 of the 16 incidents the power struggle was resolved using communicative action/reason.

In problematic cases the causes of action can be attributed to a number of sources. In one of the incidents between supervisors the problem was due to a power play between two senior supervisors who were more intent on scoring points of each other than resolving problems with the final draft of a thesis. In the incidents between students instrumental and strategic action on the part of the initiator was often driven by competitive and selfish reasons. It has to be remembered that most of the incidents concern researchers in the natural sciences where collaborative laboratory work is important. Supervisors who reported the incidents had instructed pairs to work together without always understanding the personal and professional dynamics involved.

One ambitious younger male student withheld important information from his older female colleague because he felt that she, as a mother with a young child, would not put in as much work in the lab as he did. He felt that she should not benefit from his hard work. Perceptions of who had done the most work were also a source of conflict when it came to authorship of articles resulting from joint research. This sort of conflict was exacerbated when supervisors made the decision as to who should be first author without fully understanding how the two PhDs perceived the extent of their contribution.

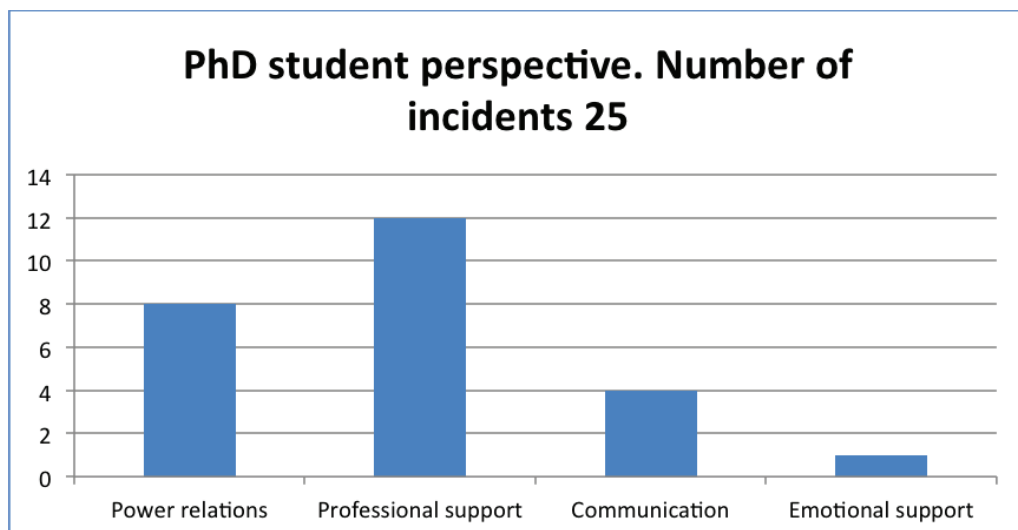
The cases that involved supervisors exerting their power over students can be divided into incidents where appropriate power was used and those where one can argue that there was a misuse of power. An appropriate use of power is vested in the supervisor by the university and defined by regulations. Such power might include reporting plagiarism and work place harassment or refusing to support a PhD who is determined to defend an inadequate thesis. Of the five incidents we studied two were examples of a misuse of power, two involved the appropriate use of power and the fifth raised the question of who gets to choose the thesis topic – the student or the supervisor. In this last case a lot can depend on the discipline one works in and the sort of funding that pays for the PhD position. In the two incidents that involved inappropriate use of power one can be seen as an ethical breach. A senior supervisor demanded that a colleague's name be added to the list of authors on a student's article even though that person had done no work on the article. The second misuse of power was more the result of personal frustration and anger over a student's mistake than calculated and unethical attempt to subvert the system.

In the incidents where students confronted supervisors one of the four conflicts concerned joint authorship and writing. A student was under pressure to publish a final article so she could finish her thesis and take up a job offer. The supervisor felt the article needed more work and wanted to delay its submission, an opinion that was shared by the student's co-authors. Although the stressed student was initially very upset about this, the problem was resolved via rational dialogue and the paper was included in the thesis as a manuscript rather than a published paper. This is one example of the way in which a situation that arises because of instrumental/strategic action can be turned around by the use of communicative action/reason. Unfortunately the other three cases were characterized by instrumental and/or strategic action. The subsequent conflict that arose could not be resolved by communicative reason. In the worst of these cases the student protagonist was perceived as mean, confrontational and manipulative and in the end the university was forced to rule on the matter (in the supervisor's favour). When we take all 25 incidents that were written from a supervisor's perspective 12 could be described as displaying aspects of instrumental and/or strategic action. In 3 of these cases difficult situations were resolved because those involved were prepared to engage in rational dialogue.

There were a number of incidents from the first set of 25 that could not be easily identified as deliberate efforts to engage in instrumental/strategic or communicative action. These incidents for the most part described situations where communication broke down because of different expectations from the supervisors and students in matters of writing and feedback or because students gave the impression that they understood a complicated explanation but in fact did not. It is possible to see the latter incidents as a latent expression of the power invested in a hierarchical academic system where students are not always told clearly what their rights are and do not feel comfortable asking questions of clarification. For the most part these incidents highlighted human fragility, and, dare one say, a lack of supervision training.

#### ANALYSIS OF INCIDENTS TOLD FROM A STUDENT PERSPECTIVE

The analysis of the second set of 25 incidents which were written from a student's perspective revealed that 8 concerned issues of power, 12 related to professional support, 4 to communication and 1 to emotional support (see figure 2 below). In the category that we call power relations action was perceived to be initiated by different protagonists – three concerned power struggles among supervisors, three can be described as supervisors exercising power over PhD students, one involved conflict between students and one concerned an issue where a student initiated an action that was ignored by seniors in the group. As with the first set of incidents the category of professional support focused on the supervisor's duty vis-à-vis students whereas communication issues involved different constellations within the research group. It is debatable whether or not it is a supervisor's duty to provide emotional support. The relationship can become so personal that sometimes it is the student who provides such support. In this study support was given by the supervisor.



*Figure 2: Category and number of incidents told from a PhD student perspective*

An analysis of the 8 power incidents revealed that 3 concerned struggles between supervisors, 3 involved supervisors who misused their power over students, 1 related to conflict between two students and 1 was classified as a case of 'passive power' in so much as action was initiated by a student but ignored by seniors in the team. As with incidents told from a supervisor's perspective all but one of the main protagonists acted strategically and/or instrumentally. Unlike the first set of incidents, however, none of the issues were resolved by the use of communicative action or rational dialogue. This is a significant difference that is worth investigating further. When supervisors remembered back to their own time as students and related incidents that they were involved in or had observed, a majority of such incidents involved the misuse of power. A disturbing fact is that it was mainly senior supervisors who misused their power. In one case a very experienced Professor abused a student in front of his fellows. In two other cases, senior supervisors insisted (unjustly) that the names of friends be added to their students' articles. One senior supervisor used his hierarchical position to dismiss suggestions by his junior supervisor



for changes to their student's study plan and another argued, against his co-supervisor, about the disciplinary content of a thesis (in front of the student). Failure to resolve differences of this type and to present a united front to the student was perceived by the narrator to be detrimental to the student. Ironically the junior supervisor was perceived to be in the right in both cases. In the incident of 'passive power', mentioned above, the student took the initiative but senior supervisors ignored this competent person's offer to implement an intranet system for the research group. In the one instance where a power struggle occurred between students it was caused by the desire of a competitive and secretive person to be better than a fellow student.

Of the 12 incidents that concerned professional support, 1 could be characterized as organisational failure – a sick supervisor was not replaced and the students suffered. The rest of the incidents exemplified different types of support from individual supervisors. In 7 cases the incidents were negative. Supervisors acted instrumentally with their own particular ends in mind. In 2 cases supervisors were promoted and instead of resigning their position as supervisor, simply neglected the student, leaving the second supervisor to pick up the pieces. In 4 other cases the students realised too late that they had put their trust in supervisors who could not give timely or appropriate feedback. One supervisor lacked expertise, another the courage to give strong, constructive criticism, a third had no ability to inspire the student and the fourth let things drift in the early stages of the PhD thereby exacerbating problems in the later stages of the thesis. In the remaining case the supervisor simply did nothing and, not knowing any better, the student felt compelled to go it alone. There was a silver lining to these incidents. Co-supervisors stepped in a couple of cases and helped salvage the situation.

In the remaining 5 incidents positive support was given in difficult situations. A supervisor who had been rather mediocre supported his student at a crucial time, insisting that a paper be rewritten even though the student felt like giving up. In another incident an industry adjunct stepped in and rekindled a student's interest in a complicated project. One supervisor had the good sense to call in specialist help when he realised the PhD student was burnt out. This incident had a positive outcome because of the skill of the psychologist who was called upon for help. In another incident a discouraged PhD (in maths) was helped by a supervisor who devised problems that improved the student's confidence and provided a new way forward. In the fifth incident a strong supervisor used the right amount of pressure to push a student to argue a case and in doing so developed the student's ability not only to gather data but also analyse and present it in a scholarly setting.

The remaining incidents concerned three cases of communication breakdown and one where a supervisor provided emotional support for a student who had undergone a difficult divorce. In the latter case the supervisor went beyond the call of duty and acted as friend and mentor. The fact that the supervisor and student were of a similar age and of the same gender made this process easier. The three instances of poor communication were the result of a) epistemological conflict, b) lack of agreement among seniors about the suitability of a recruit, and c) lack of discussion about the authorship of an article. In the first two cases individuals assumed that others involved shared their assumptions and values, while in the third a decision was made without enough knowledge and prior consultation.

## CONCLUSIONS

This project was initiated in order to improve the conduct of a course in supervision and, hopefully, disseminate research results that could help others improve similar courses. The authors, because they assumed a common purpose in the supervisory process, had expected much greater

use of communicative action to ensure that a common purpose was met. In fact a number of incidents demonstrated instrumental and/or strategic action rather than communicative action on the part of supervisors. Since these incidents were gathered from supervisors in an engineering university where it is common for research groups to work as a team it would be of interest to compare our results with another study that focused on supervision in the humanities.

Sinclair's report (2004, v, 5, 24) argues that in Australian universities supervision in the natural sciences appears to be more successful than in the Social Sciences and Humanities. He uses completion figures to support his argument. He also points out that Postdoctoral positions are more common in the Sciences and that this leads to more experienced younger supervisors in the natural sciences. He goes on to argue that competent young co-supervisors and a teamwork ethos can partially explain the 25% difference in completion rates (Sinclair, 2004, 24). Although our research cannot be compared with Sinclair's large survey it does suggest that there might be a less positive side of supervision in the natural sciences. Younger supervisors are often more active because the team leader (generally a Professor and, on paper, the main supervisor) is too busy seeking funding and building networks and as a consequence may not have time left over for hands-on supervision or laboratory work. Quite a number of incidents revolved around the fact that senior supervisors did not give sufficient support knew, little about the specific areas that individual students were working on, or, in the worse cases ignored students except when they wanted their name, or a friend's name, on a publication.

Another conclusion was that there was a difference between the incidents told from a current supervisor perspective and those that were remembered from the time when the supervisors had been PhD students. In the first case most incidents related to power struggles between supervisors. In the second case the greatest number of incidents revolved around a lack of support for the PhD student. It would be useful if future research on this topic obtained critical incidents from current PhD students who are at different stages of their candidature. A comparison between the number and type of incidents from current students and supervisors, as opposed to incidents that are remembered by supervisors from their own time as students, would improve any future study. A different study altogether could involve analysing if incidents that are remembered from a decade ago are more likely to be more negative than those that are recalled from recent memory.

One sobering conclusion from our research is that in only 12 out of the 50 incidents did supervisors and students engage in communicative action and use rational dialogue to resolve problems and conflicts. Despite a compelling mutual interest (the successful defence of a PhD) strategic/instrumental action took precedence. The circumstances surrounding such actions differed but our analysis shows that it was the supervisors who initiated most of the negative incidents. This is despite the fact, that as the ones with most power, they also have the most responsibility to use it appropriately. The perceived reasons for their misuse of power do not cast a good light on such supervisors. Some were seen to be lazy, others so ambitious for themselves that they disregarded their students; some were outright unethical while others stuck stubbornly to their preconceived ideas of scholarship and supervision to the detriment of students in their care.

We have already mentioned a number of limitations in the study. A more objective way of deriving categories and analysing the content of incidents (the Delphi technique for example) would have improved the study. This is something we will consider in the next phase of research. The sample size of incidents can also be increased. Despite these limitations the present study will be of immediate use in courses on how to supervise PhDs. In using the critical incident technique in teaching and learning it is advisable to have course participants first of all analyse

incidents told by others before writing and analysing their own. This paper can be used in this first phase to demonstrate to participants how they can draw general conclusions and plan possible solutions to incidents that portray conflicts over power, ethical dilemmas, lack of professional and emotional support, poor communication and other issues in supervision.

#### REFERENCES

- Anderson, B., & Nilsson, S. (1964). Studies in the reliability and validity of the critical incident technique. *Journal of Applied Psychology* 48, 398-403.
- Argyris, C. (2004). *Reasons and rationalizations: the limits to organizational knowledge*. Oxford: Oxford University Press.
- Becher, T. 1989. *Academic tribes and territories. Intellectual enquiry and the cultures of disciplines*. Milton Keynes: SRHE/Open University Press.
- Borgen, W. and Amundson, N. 1988. Factors that help and hinder in group employment counseling. *Journal of employment counseling* 25: 104-114.
- Brookfield, S. (1987). *Developing Critical Thinkers*. San Francisco: Jossey-Bass.
- Carr, W., & Kemmis, S. (1986). *Becoming critical: education knowledge and action research*. London: Falmer Press.
- Christie, M. (1995). *Critical Incidents in Vocational Teaching*. Darwin: NTU Press.
- Christie, M. (2008). *Using critical incidents to improve the supervision of PhD students*. Gothenburg: IT University Press.
- Corsini, R., & Howard, D. (1964). *Critical Incidents in Teaching*. New Jersey: Prentice Hall.
- Delamont, S., Atkinson, P. and Parry, P. 2004. *Supervising the doctorate: a guide to success*. Milton Keynes: Open University Press.
- Flannagan, J. (1954). The critical incident technique. *Psychological Bulletin*, 51, 327-358.
- Gatfield, T. 2005. An investigation into PhD supervisory management styles: Development of a dynamic conceptual model and its managerial implications. *Journal of Higher Education Policy and Management*. Vol. 27, No 3, pp. 311-325.
- Habermas, J. (1984-86). *The Theory of Communicative Action* (Vol. 2 vols). Boston: Beacon Press.
- Handal, G., Lauvås, P. and Lycke, K. 1990, *European Journal of Education*, Vol. 25, No.3, pp. 319-332
- Handal, G. and Lauvås, P. 2008. *Forskarhandledaren*. Stockholm: Studentlitteratur.
- Killen, R., McKee, A., Macleod, G. and Spindler, L. 1983. *Critical incidents in TAFE teaching*. Cardiff: Newcastle CAE.
- Linden, J. 1998. *Handledning av doktorander*. Stockholm: Nya Doxa.
- Linden, J. 1999. The contribution of narrative to the process of supervising PhD students. *Studies in Higher Education*. 24, 3; pp. 351-369
- Lönn Svensson, A. 2007. Det beror på, Erfarna forskarhandledares syn på god handledning. PhD dissertation, Borås: Skrifter från Högskolan i Borås, nr.4.
- McMorland, J., Carroll, B., Copas, S. and Pringle, J. 2003. Enhancing the practice of PhD Supervisory Relationships through first and second person action research/peer partnership inquiry. *Quality Social Research (QSR)*, Vol. 4, No 2.
- Mezirow, J. (1991). *Transformative Dimensions of Adult Learning*. San Francisco: Jossey-Bass.
- Punch, K. 2009. *Introduction to research methods in education*. New Delhi: Sage Publications.
- Sinclair, M. (2004). *The pedagogy of 'good' PhD supervision: a national cross-disciplinary investigation of PhD supervision*. Canberra: Australian Government, Department of Education, Science and Training.
- Tripp, D. 1993. *Critical incidents in teaching: Developing professional judgment*. London: Routledge.
- Wisker, G. 2012. *The good supervisor*. London: Palgrave Macmillan.
- Woolsey, L. (1986). The critical incident technique: an innovative qualitative method of research. *Canadian Journal of Counseling* 20(2), 242-254.

