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Psychogeography and its relevance to inclusive teaching and learning development: why it matters where students choose to sit

Abstract

This paper is based on my own experiences of classroom psychogeography, as experienced through working with a group of around 50 Masters students at Central Saint Martins over a period of more than ten years. Much has been written and published about the design of learning spaces − as well as the dynamics of group work − but relatively little has been published about the psychogeography of learning, especially at the Higher Education level. Space is never neutral. It separates − or it includes. It can be used to reinforce or challenge power-based relationships. Students express their feelings about learning by their mode of occupation of learning spaces, but these choices can also influence peer dynamics and students' subsequent levels of engagement.

I began my research as a passive observer, by noticing how certain student interactions tended to take place in certain parts of a classroom, irrespective of the individuals involved. I subsequently devised various interventions in classroom psychogeography, designed to facilitate the most effective mixing of students in group work. The outcomes of these interventions were recorded through questionnaires given to my students after participating in various classroom interventions, as well as through granular evidence, assembled though both formal and informal interviews.   My conclusions reflect on my attempts to intervene in the spatial dynamics of learning, in order to facilitate a more inclusive psychogeography.

Keywords: inclusivity; psycho-geography; peer learning relationships; group learning; learning spaces

The context: Group Learning within a multidisciplinary MA Course

Since 2001, I have been working once a week with a cohort of 50-plus postgraduate students on a multi-disciplinary Masters, which attracts a very diverse and international

student cohort. The course makes widespread use of group and peer learning methods: processes which can challenge the preconceptions which students may have about what constitutes learning. Facilitating such group learning over a number of years has lead me to consider ways in which the occupation of space – either by the entire cohort when working as individuals, or by teams undertaking group work – impacts on the quality of the student experience, and thus on student learning. If the psychogeography of learning spaces has the potential to impact - in a positive or negative way- on the student experience, then its study has a key role to play in learning and teaching development.

Over a period of years, I observed that groups of students with certain characteristics in common tended to occupy particular geographical areas of a studio or lecture room. Even when the entire cohort moved to a different teaching space, the same overall pattern or classroom psychogeography tended to reappear. It seemed to be the case that students with similar attitudes to their studies and to the pedagogy of the course would tend to sit together and − if asked to form groups − then the groups which they formed would share these characteristics. A great deal of recent research exists concerning the facilitation of group learning, such as Jaques (2006), Lakey (2010) and Michaelsen (2008). There has also been much valuable recent work on Peer-Assisted Learning, including Byl, Struyven et al (2015), Gurbutt and Gurbutt (2015), and Pritchard (2015). However, less has been published about the processes of peer group formation, and the relationship between the groups themselves and the physical environment of the learning space. Specifically, this area of research asks are characteristic attitudes and approaches to learning influenced by, as well as expressed by, the seating positions that students elect to occupy. If such a relationship exists, then by repeatedly occupying specific parts of the room, students will inevitably congregate with other students who share similar attitudes to learning – and so those attitudes, over time, will be strengthened and reinforced. These shared attitudes to learning are particularly noticeable in group work, as they are surface through student interactions.

The context: classroom psychogeography

Psychogeography is the study of how geography affects human emotions. Psychogeographers, from Thomas De Quincey, to the Surrealists, Situationists and into the current era – have focused their activities chiefly on walking and otherwise exploring outdoor urban environments. Meanwhile, the practice of indoor or interior psychogeography has remained relatively underdeveloped. However, observing and working with successive student cohorts, in a variety of spaces, over a period of years,

has led me to develop a theory about the ways in which students express their attitudes to learning through their choice of seating positions. Furthermore, I posit in this paper that there exist an 'axis of attention' and an 'axis of engagement' for students occupying any roughly rectangular lecture space.

The 'axis of attention' runs from the front of the room to the back, and expresses the degree to which any student feels personally involved in the content of a lecture, seminar or group presentation. In a conventionally-structured lecture or seminar, authority and information are expected to flow from the front of the room, where the lecturer is normally positioned. The more involved that a student feels themselves to be, then the closer that student will tend to sit to the front – a tendency which Wulf (1977), Holliman and Anderson (1986), Pedersen (1994), Race (1998), Benedict and Hoag (2004), Kalinowski and Taper (2007) and Horne Martin (2009) have all evidenced.

In addition I propose there exists an 'axis of engagement' which runs from side-to-side in any learning space. Its orientation in any given room appears to be governed by the side on which the door is located, in that students who feel fully engaged with the lecturer's pedagogy or methodology of a course tend to sit on the side closer to the door, while students who are (relatively speaking) more ready to challenge that pedagogy or methodology will cross the room and sit on the opposite side. This interpretation of students' choice of seating is based on the idea that deliberately positioning oneself at the front and opposite the door involves entering the lecturer's space – the perceived locus of power – at the front of the class. This, I would argue is a more challenging gesture than meekly sitting down on the same side of the room on which you entered. I wanted to see if these intuitive conclusions could be supported by objective evidence, and, more importantly, whether I could implement learning and teaching strategies which could counterbalance the effects which this embedded psychogeography might have on student learning. I also wanted to find ways of moving beyond existing strategies, and to further improve the learning experience of all the students in my class.

Studies of psychogeography in Higher Education

An extensive literature already exists, particularly in the USA, which examines the question of classroom dynamics at primary or grade school level. Studies undertaken specifically with students at university level are, however, less numerous. There appears to be a tacit assumption that classroom dynamics cease to be of major importance once students reach their teenage years. Race (1998) is an exception. His exposition on group dynamics and his evaluation of the various ways in which buzz

groups can be formed shows an awareness of the factors in play when allowing groups to form geographically:

> 'Simply putting students into groups according to clusters as they are already sitting… is one of the easiest and quickest ways of dividing a class into groups… [however] it is not unusual for the students nearest the tutor to be rather higher in motivation than those in the most remote corner of the room!' (Race, 1998, p. 145)

Student motivation has been extensively studied in relation to the front-to-back axis, and there have been several studies based around the relative grades achieved by students who sit at the front of lecture rooms versus those who habitually sit at the back. It has been established by Wulf (1977), Holliman and Anderson (1986), Pedersen (1994), Benedict and Hoag (2004), and Gossard, Jessup and Cassavant (2006), as well as others, that students who choose to sit at the front of the class will tend to achieve better grades. Wulf (1977) suggests the existence of an 'action zone' at the front and middle of the classroom, and reports that participation in her classes was highest at the front on the right-hand side (but without specifying where the door of the classroom was situated). Pedersen (1994) summarizes his findings as follows:

> 'The relationship between privacy preferences and the location of selected seats in a classroom was investigated. Subjects were 17 men and 34 women in an undergraduate psychology class. The location of the seat selected in a rectangular classroom was described according to depth: front, middle, and back. Privacy preferences were measured using Marshalls (1974) Privacy Preference Scale. Those who opted to sit in the back were significantly higher on the Not Neighboring and Seclusion scales.' [Pedersen, 1994, p. 393]

Pedersen's conclusions have a clear resonance for any lecturer supervising students in group work who might be tempted to allow groups to form through the existing geographical distribution of students in the classroom. Groups which are permitted to form in this way are likely to have measurable differences with regard to the front to the back of the room in aspects of student engagement ('Not Neighboring' and 'Seclusion') which, in turn may have a significant impact on a learning group's ability to function. Both Wulf (1977) and Holliman and Anderson (1986) had previously demonstrated that there is a measurable correlation between student seating preference and student grades:

> 'A study of the relationship between student grades and: (a) proximity (distance from the student to the instructor), (b) centrality (seating in the center of the room compared to seating toward the sides), (c) student density (presence of other students to the front, sides, and back of the student), and (d) aisle seating is reported. … Students who occupied the front rows received higher grades than those who sat farther back. Centrality, student density, and aisle seating were not related to grades. Although these findings cannot be generalized freely, they indicate the value of studying ecological factors

in classrooms.' (Holliman and Anderson, 1986, p. 200)

On a typical university course, little or nothing is done to mitigate the impact of these factors. The question of classroom psychogeography usually passes 'under the radar', as Horne Martin (2009) points out:

> 'Observation in classrooms identified predicting patterns of participation in class activities from seating arrangements, patterns of which teachers were not aware.' (Horne Martin, 2009, p.79)

Siefert and Sutton (2007) draw particular attention to the persistent social and physical patterns that underlie almost all classroom interactions:

> 'Many class activities take on communication patterns that class members learn to expect without even being reminded. Each pattern is a participation structure, a set of taken-for-granted rights and responsibilities expected from students and teacher during an activity…. A lecture, for example, has a particular participation structure: students are responsible for listening, for raising a hand to speak, and for keeping comments brief and relevant if called on…. In principle, a host of participation structures are possible, but just a handful account for most class activities.' (Siefert and Sutton, 2007, ch.12, p.1)

Siefert and Sutton's identification of the ubiquity of student expectations when engaged in any specific learning activity is pertinent. Clearly, teachers should be aware of the need to signal a phase change in the expected mode of student engagement, and not simply assume (especially when dealing with students from diverse cultural backgrounds) that individuals will be capable of instantly moving from one participation structure ('lecture mode') to another ('group work mode'). Any difficulty experienced in moving from one participation structure to another might be compounded by students remaining in the same geographical part of the room, with the same peers surrounding them. In such a situation, is it will not necessarily be clear to the student that the participation structure which they are expected to recognise and engage with has just been changed.

Wulf (1977), and subsequently Benedict and Hoag (2004), determined that students who were directed to sit at the front of the classroom instead of their habitual position at the back would tend to start achieving higher grades. If it is possible to enhance an individual student's grades by the expedient of moving them to a different part of the classroom, then by analogy it should be possible to enhance the experience of students involved in group work, either by moving entire groups to different parts of the room, or by ensuring that the individual members of a group do not all come from the same habitual seating positions. In other words, the dynamics of classroom seating can be

modified in relatively simple ways that are capable of having a significant impact on student learning and – presumably – the overall quality of the student experience.

The research strategy

My initial research was carried out in 2011, with some of the interventions being repeated in 2015-16. The research was planned as a three-stage process. During stage one, I asked students to complete two surveys, designed to capture their feelings about their seating choices in a statistical form. The aim was to discover if there were specific correlations between a student's seating position, and their attitude towards the pedagogy of the course. During stage two, I introduced a series of randomised methods of group formation and seating arrangements. These approaches were designed to mitigate the effects of students choosing buzz groups and teams influenced by habitual geographical seating choices. During this phase I talked informally to students about their reactions to the various methods of forming groups. Some of these conversations were, with the students' permission, recorded. During the third stage of my research, I introduced several new interventions into seating and group formation, including a reversion to a purely geographical group-formation method, a complete front-to-back and left-right reversal of the normal seating plan of the room, and a method of group formation based on a partly random and partly self-selecting approach. Student responses to these interventions were recorded via two more student surveys, plus a further series of interviews, which were all recorded on video.

At all times I was transparent with the students regarding what I was attempting to do, and why I was doing it. The students repaid me with a high level of co-operation at every phase of the research. I had no concerns about the students trying to 'second guess' what I was doing, as I believed that participation in the research created a heightened awareness of the dynamics of the learning process which could only have a beneficial effect on the students' overall feelings of inclusion and motivation, and therefore the quality of their learning experience. The group learning assignments that the students were engaged in during the research do not receive any individual summative assessment, as the unit in question is graded holistically. Therefore, the focus was on improving the students' individual experience of the learning process, rather than any evaluation though the grades which they achieved.

The survey results

The first survey was designed to test if there were any genuine differences in attitude to the course pedagogy between students who occupied different parts of the room. The

survey was carried out at a time when there was no group work in progress, so there were no formal restraints on the students' choice of seating position. The survey contained three questions.

Question one asked students to gauge the degree to which they felt that they understood the learning and teaching strategies of the course. Question two asked them to gauge how valuable they expected the course to be. Question three asked them to identify where they were sitting, relative to the front of the room and the door. I received a total of 45 responses to the survey, and the after tabulating the results it became clear that there were indeed patterns of engagement and involvement to be discerned.

FIRST SURVEY: Results

Seating Position	Front Near Door	Front Opp. Door	Middle	Back Near Door	Back Opp. Door
Q.1: I already fully understand and accept the learning and teaching strategies of this course.	20%	25%	25%	22%	37.5%
Q.1: In due course I will come to fully understand… this course.	60%	75%	75%	66%	25%
Q.1: I am uncertain if I will ever fully understand… this course.	20%	Nil	Nil	11%	37.5%
Q.2: I expect to gain valuable insights… by taking this course.	80%	58%	75%	44%	75%
Q.2: I hope to gain valuable insights… by taking this course.	20%	42%	25%	44%	12.5%
Q.3: I am at present uncertain… whether or not I will gain valuable insights… by taking this course	Nil	Nil	Nil	11%	12.5%
Total students responding	10	12	8	9	8

When answering question one, 75% of students who described their seating position as being at the front opposite the door, chose option no.2 ('I believe that in due course I will come to fully understand and accept the learning and teaching strategies of this course') as their preferred response. Sixty percent of the students sitting 'front nearest the door' chose this option, but only 25% of the students sitting 'back opposite the door' chose this. None of the students sitting at the front opposite the door selected response no.3 ('I am at present uncertain as to whether I will ever fully understand or accept the learning and teaching strategies of this course') while 37.5% of the eight students sitting at the back opposite the door selected this option. The highest number of students choosing response two to question two ('I hope to gain valuable insights and make creative discoveries by taking this course') were sitting at the front opposite the door –

42% chose this option. In other words, students sitting at the front and opposite the door were less confident of gaining valuable insights than students who sat at the front and near the door, 80% of whom expected to gain valuable insights through taking the course.

These results, while based on a relatively small number of students, tend to support the empirical observation that students who sit at the front are more highly motivated. Furthermore, students who sit at the front opposite the door appear to be more ready to deconstruct and even challenge the pedagogic basis of their learning – perhaps because they are the most highly motivated and independent-thinking in the classroom.

A second survey was designed to investigate how students themselves understood (or rationalised) their choice of seating position. Students were asked to tick as many of the reasons supplied for their seating choice as they believed applied to them. They were also asked to supply any additional reasons for their choice of position that did not appear in the survey. There were 12 possible responses, divisible into nine responses dealing with issues of physical, emotional or social comfort, and three dealing with issues of academic attention and involvement.

SECOND SURVEY: Results

Seating Position	Front Near Door	Front Opposite Door	Middle Near Door	Middle Opposite Door	Back Near Door	Back Opposite Door
Comfort-related responses	13	6	10	8	14	2
Study-related responses	9	9	8	3	8	2
Total in student group	7	6	7	6	8	7 (but only three responses received!)

The most interesting difference in these results emerged between the group sitting at the front opposite the door, and all the other groups. The group sitting at the front opposite the door were the only group to rate academic concerns above personal comfort in their choice of seating position.

Granular research

I subsequently recorded a series of video interviews with students, individually and in groups, all held immediately after a group had been asked to form. The student groups were formed using various methods of selection. The first set of interviews took place after students had been asked to form randomly-assigned groups that is the group members were chosen by algorithm, without reference to seating patterns. The students were asked to locate the other members of their group, and then to find a place in the studio for the group to gather and begin their group assignment.

During this series of interviews, I sensed that many of the students were reluctant to think deeply about the reasons why they preferred to occupy certain parts of the studio. Most of their comments were descriptive, rather than analytical:

'Both of us were together and were part of the group.'

'They sit next to each other anyway.'

'[This was] the only place left over...' (Interviews 25 May 2011)

There was no discernable pattern in the answers given by groups occupying different parts of the studio. Only one student was prepared to dig a little deeper at this stage, but he also regarded the group choice of seating position as being essentially random:

'When one of us identifies another person in the group, the first place where two of them get together, then all of the others go to that place...' (Interviews 25 May 2011)

After this round of interviews, I introduced a new experiment. The normal seating positions, and the front-to-back axis of the room, were reversed. I conducted the seminar from the opposite end of the room to normal. Some students, returning after a break and seeing the new seating layout, elected to remain in the same geographical part of the studio, while some tried to find an equivalent position in relation to the lecturer to that which they had formerly occupied. Once the students were established in their new positions, they were asked to split into a new set of randomly-generated groups for a team assignment. I conducted interviews both during this process and after the new teams were established. The comments from some of the students in these interviews show that the students acknowledged the role that strong or dominant individuals play in determining which part of the studio a group would sit in.

'You always follow the leader... we have a hierarchy....'

'You gravitate around a dominant personality, probably because that person holds their ground, and expects people to come to them....' (Interviews 1 June 2011)

One clear outcome of the reversed seating position was that once the students had formed themselves into groups, no groups chose to occupy what is normally the front of the studio. My inference is that the students who normally occupy the front space, and

around whom groups tend to form, had gravitated to the new front, so there were no dominant individuals to 'seed' groups in what had now become the back of the studio. One week later, I repeated the group-formation process, but without the reversal of the normal seating positions. The interviews produced similar responses:

> 'Certain people come first, and the rest follow... alpha males. Alpha male [is] a metaphor for this leading person...' (Interviews 8 June 2011 [a])

A second intervention on the same day invited students to form buzz groups on a purely geographical basis – forming groups with whoever happened to be sitting near them. This produced a situation that I had encountered before, namely that the students near the back formed a giant-sized group, containing about 15 individuals, instead of the five or six that had been suggested. Once this super-group had been split into three, I carried out interviews with all the geographically formed groups. These interviews revealed a dramatic split between students who felt more comfortable in geographically-formed groups, and those students who could see the limitations of this approach:

> 'Comfortable...'

> 'Very comfortable...'

> 'Quite welcoming...'

> 'Perhaps we're a little bit too comfortable...'

> 'In this case we all know each other... it's harder to concentrate.'

> 'If you did it that way every week, you'd always have the same people together so maybe you wouldn't have as [many] valued contacts...'

> 'The good thing... is that you have people you like. But the bad thing is that you always end up with them, so it's not going to change you.' (Interviews 8 June 2011)

When asked whether the geographically-formed groups were more or less sympathetic to their views than random groups, 22 students responded that the geographically-formed groups were more sympathetic, and only one student that they were less sympathetic.

Finally, I introduced a new method for splitting the students into buzz groups, which was intended to leave opportunity for personal choice, but to prevent those who habitually sit together from working together. Students sitting in six different areas of the room were given cards of a similar colour, and then asked to form into groups of six, but with no group being allowed to contain more than one student with the same colour card. The students then carried out a short group exercise. After the task was completed, I asked the students to complete two surveys, about their perception of the reasons behind their

new group's choice of seating position and about their perceptions of the new group they were now a member of.

THIRD SURVEY: Results

Group's Chosen Seating Position	Front Near Door	Front Opposite Door	Middle Near Door	Middle Opposite Door	Back Near Door	Back Opposite Door
Comfort-related reasons	5	12	4	9	4	7
Study-related reasons	2	13	1	2	1	Nil
Group dynamics reasons	5	6	Nil	5	5	3
Total responses received from group	6	5	3	4	5	5

As can be seen, the group sitting at the front and opposite the door were the only students to cite a higher number of study-related than comfort-related reasons for their seating choice. Group dynamics reasons are cited at a roughly constant level through the whole space, but study-related reasons are far outnumbered by comfort-related ones towards the back of the room.

When asked in Survey Four if, when compared with the geographically-formed groups, these new groups were more or less supportive and sympathetic to their views, 15 students answered 'yes', nine said they were less sympathetic, and 19 could discern no difference. This is, on the surface, a puzzling result, as it implies that forcing students to select teammates from other parts of the room produces an even more comfortable consensus of views than when working with their geographical neighbours. However, the interviews conducted after the exercise went some way to uncovering the reasons behind this surprising result.

'In the group thing with the colours you forced us to choose different people, but in the end it was always people you like, even though they were sitting at the other end...'

'There was a certain element of selecting people you thought you would get along with...'

'What you are trying to do is to find somebody that you know... with the colour card that corresponds.' (Interviews, 23 June 2011)

In these responses, we see evidence of Horne Martin's 'patterns' of student engagement. Geographical positioning is just one of the ways in which a student cohort organizes itself within a learning space. The colour-coded card intervention disrupted the normal psychogeography of the cohort, but created the opportunity for new, non-random student groupings to be formed around established social relationships. One student seemed to appreciate the pedagogic issues involved very clearly:

'I prefer random groups... because we share different opinions. If we are allowed to choose our group mates, then we prefer to pick our friends, and then [we come] to the same opinion and we finish the discussion quickly...' (Interviews, 23 June 2011)

Conclusions

My purpose with this research has been to improve the quality of the student experience when participating in group work. The research supported some of the intuitive conclusions that I have reached over the previous decade, but it also suggested new questions for investigation. I am satisfied genuine differences in students' involvement and engagement with lecturer pedagogies and course methodologies are suggested by students' decisions , conscious or unconscious, to sit in different parts of a lecture room or studio along the 'axis of engagement'. My data suggests that students who sit near the front are relatively more concerned with academic issues, while students who sit near the back are relatively more concerned with issues of physical or emotional comfort. Students who sit near the front and opposite the door are more likely to challenge the course pedagogy, but they do so from a position of keen involvement with the progress of their course. Students who sit at the front near the door are also demonstrably more highly involved than those who sit at the middle or back, but they have a greater tendency to give unequivocal trust to the course and to their lecturers. I have no clear evidence that the near-the-door/away from the door split applies as strongly at the back of the classroom. In fact, the back of the classroom emerges as an area where clear distinctions of all kinds have a tendency to break down. It is a zone where students prefer to avoid direct eye-contact with their lecturers (Wulf, 1977, p.3) and seek the safety (and anonymity) of large groups. The psychogeography of the back of the room is a subject worthy of further research.

What surprised and fascinated me the most through the research process was the gradual uncovering of the layered networks of interaction that underlie all learning activities, Siefert and Sutton's 'patterns' and 'participation structures'. Friends do not necessarily sit with friends – in fact, the complex intersecting and interlocking patterns of friendship in a cohort of 50 students would probably make such an arrangement topographically impossible. Rather, there are layered and nuanced factors at work in determining where students choose to sit – enthusiasm and involvement, attitudes to the course and its pedagogy, personal comfort, a desire to be near to friends, and perhaps other factors yet to be identified. Thus my final intervention, which forced students to form buzz groups with anyone except those students who they normally sit near to, created an unexpected opportunity for students to seek out their existing friends who were sitting in other parts of the room. Friends do not necessarily sit together, as they may not share the same attitudes to learning: psychogeography can over-ride even the ties of friendship. The colour-card intervention, with its consequent seeking-out of friends from other areas of the room, produced groups   which a high proportion of students found even more supportive to their point of view (i.e. less challenging) than those groups that were arranged on a purely geographical basis. This outcome lends even more weight to the approach that I now prefer to adopt: selecting student groups on a purely random basis, and making sure – over the course of a term or a course unit – that each student gets to work, at some point, in the same team as every other student.

This research reinforces the idea that students are a valuable learning resources for each other, and every student has an important role to play in group work and in peer learning. Unexamined and unchallenged classroom psychogeographies could be working to limit certain students' access to learning is limited by reinforcing existing patterns of attention and engagement. The facilitation of more inclusive psychogeographies is thus a key to more inclusive learning. This field of enquiry – which has hitherto received relatively little attention in Higher Education – has therefore the potential to open valuable new avenues of development in both learning and teaching.

BIBLIOGRAPHY

Andersen, G., Benjamin, D. & Fuss, M. 1994. The determinants of success in university introductory economics courses. *Journal of Economic Education* 25(2), pp. 99-119.

Auge, Marc. 1995. *Non-Places: A Introduction to Supermodernity.* London, Verso.

Ballard, C.L & Johnson, M.F. 2004. Basic math skills and performance in and introductory economics class. *Journal of Economic Education* 35(1), pp. 3-23.

Benedict, M. & Hoag, J. 2004. Seating location in large lectures: Is location related to performance? *Journal of Economics Education* 35(3), pp. 215-231.

Bonello, E.J., Swartz, T.R. & Davisson, W.I. 1984. Freshman-sophomore learning differentials: A comment. *Journal of Economic Education* 15(3), pp. 205-210.

Byl, E., Struyven, K., Meurs, P. & others. 2015. Peer assisted learning as a tool for facilitating social and academic integration. Journal of Learning Development in Higher Education, Special Edition: Academic Peer Learning, November 2015.

Cazden, C. 2001. *Classroom discourse: The language of teaching and learning,* 2nd edition. Westport: Heinemann.

Coverly, M. 2010. *Psychgeography*. Harpenden, Pocket Essentials.

De Certeau, M. 1984. *The Practice of Everyday Life.* Oakland, University of California Press.

Egendorfer, M.J. & Mark, D. (n.d.). Naïve Geography. National Center for Geographic Information and Analysis Report, pp. 95-8.

Gossard, M., Jessup, E. & Casavant, K. 2006. Anatomy of a Classroom: An Exploratory Analysis of Elements Influencing Academic Performance. *NACTA Journal* 53 (2), pp. 36-39.

Gurbutt, D. & Gurbutt, R. 2015. Empowering students to promote independent learning: A project utilising coaching approaches to support learning and personal development. *Journal of Learning Development in Higher Education.* Issue 8: March 2015.

Hiraoka, P. (n.d.). Effect of Classroom Seating Preference on Academic Motivation, Participation, and Performance. Unpublished dissertation. El Camino College.

Holliman, W.B. and Anderson, H.N. 1986. Proximity and student density as ecological variables in a college classroom. *Teaching of Psychology* 13(4), pp.200-203.

Horne Martin, S. 2009. Environment Behaviour Studies in the Classroom. *Journal of Design and Technology Education* 9 (2), pp. 77-89.

Jaques, D. 2006.*Learning in groups: a handbook for face-to-face and online environments.* New York: Routledge.

Kalinowski, S. & and Taper, M. 2007. The Effect of Seat Location on Exam Grades and Student Perceptions in an Introductory Biology Class. *Journal of College Science Teaching*, January/February 2007.

Knabb, Ken (ed). 1981. *Situationist International Anthology.* Oakland, Bureau of Public Secrets.

Lakey, G. 2010. *Facilitating Group Learning: Strategies for Success with Adult Learner*s. San Francisco, Jossey-Bass.

Lave, J., & Wenger, E. 1991. *Situated learning: Legitimate peripheral participation.* Cambridge: Cambridge University Press.

McKeatchie, W. & Svinicki, M. 2005. *Teaching tips: Strategies, research, and theory for college teachers*, 12th edition. Boston: Houghton Mifflin.

MacPhee, L. 2009. Learning Spaces. *Educause Quarterly* Volume 32: Number 1, 2009.

Michaelsen, L. (ed.). 2008. *Team-Based Learning: Small Group Learning's Next Big Step: New Directions for Teaching and Learning.* San Francisco, Jossey-Bass.

Mark, N. 2010. *Networks: An Introduction.* Oxford: Oxford University Press.

Mehan, H. 1979. *Learning lessons: Social organization of the classroom.* Cambridge: Harvard University Press.

Pedersen, D. 1994. Privacy Preferences and Classroom Seat Selection. *Social Behavior and Personality: an international journal.* 22 (4), pp. 393-398.

Pritchard, C. 2015. Mentoring in the writing café: identity, belonging and ownership. *Journal of Learning Development in Higher Education. Special Edition: Academic Peer Learning.* November 2015.

Race, P. 2001. *The Lecturer's Toolkit,* 2nd edition. London: Kogan Page.

Richards, K. 2006. Being the teacher: Identity and classroom discourse. *Applied Linguistics*, 27(1), pp. 51-77.

Richardson, J.T.E. 2005. Students' Approaches to Learning and Teachers' Approaches to Teaching in Higher Education*. Educational Psychology*, 25(6), pp. 673-680.

Richardson, T. (ed.). 2015. *Walking Inside Out: Contemporary British Psychogeography.* London, Rowan & Littlefield.

Scott-Webber, L., Branch, J., Bartholomew, P. and others. 2014. *Learning Space Design in Higher Education.* Oxfordshire, Libri Publishing.

Seifert, K. & Sutton, R. 2007. *Contemporary Educational Psychology.* Wikibooks. Available from http://en.wikibooks.org/wiki/Contemporary_Educational_Psychology

Solnit, R. 2006. *A Field Guide to Getting Lost.* Edinburgh, Canongate.

Stehle, M. 2008. PsychoGeography as Teaching Tool: Troubled Travels Through an Experimental First-Year. *InterActions: UCLA Journal of Education and Information Studies*, 4(2).

Totusek, P. & Staton-Spicer, A. 1982. Classroom seating preference as a function of student personality. *Journal of Experimental Education* 50(3), pp. 159-163.

Watts, D.J. 2004. *Six Degrees: The Science of a Connected Age*, 2nd edition. London: Random House.

Wenger, E. 1998. *Communities of practice: learning, meaning and identity.* Cambridge: Cambridge University Press.

Wulf, K. M. 1977. Relationship of Assigned Classroom Seating Area to Achievement Variables. *Educational Research Quarterly* 2 (2), pp. 56-62.