Reflections on Students' Experiences of Practical Group Projects in Media Production Education.

# Abstract

This chapter evaluates students' experiences of group work in media production education and investigates strategies for effective teaching and learning in that context. Working in groups can be challenging for students and for tutors supervising the logistics of practical production and assessment. Within the broader context of media education, media production education has lacked attention beyond debates over employability versus academic study. Strategies for teaching media production and students' experiences of learning through group practical work deserve further enquiry and discussion. This chapter examines theories of experiential education that have influenced strategies for effective group working and considers in particular the management of group dynamics within a media production and learning environment. Furthermore, the chapter evaluates the outcomes of a survey of student learning experiences of group work within the context of the literature relevant to media production pedagogy and academic practice concerned with groups and practical work. It is concluded that carefully managed group work in media production education represents positive, iterative learning processes. A need for theoretical frameworks dedicated to questions of media production education as well as areas for further research are identified.

**Keywords**: group projects; media production; student experience; vocational training

## Introduction

This chapter investigates methods of teaching and learning in media education with a focus on the student experiences of learning media production through practical group work. It examines issues relevant to group work and assessment within media production courses in Higher Education and evaluates strategies for teaching and learning.

Higher education media production courses are characterised by the inclusion of practical group projects, where students work together as part of module assessments to produce short programmes, videos or films. This involves group work and practical activity where students are reliant on each other in a process of collaboration, developing and drawing on each other's skills and knowledge. This approach to learning can be challenging for both students working in these groups and for teachers supervising and managing the logistics of practical production and assessment within the academy. This chapter is relevant to media production pedagogy and more broadly to academic practice concerned with groups and practical work. It also

addresses issues relating to employability and work related learning in creative production education.

The research informing this chapter has employed a mixed methodology combining a theoretical review of the broader contexts of media education and practical group learning with a survey of student learning experiences of group practical production work. Data collection and analysis are informed and contextualised by theories of education and group work considered in the literature review. Aggarwal and O'Brien (2008) and LaPrairie (2007) highlight relevant issues facing teaching and learning through project-based group work and which are applied here to a media education context. Dewey's theory of "intelligent learning" (19916) and Kolb's "experiential learning" (1984) frame Reynolds' (1994), Hanney's (2013) and Hanney and Savin-Baden (2013)'s discussion and strategies of group practical production.

This chapter is intended to scope the potential for further research into group work in media production education and for raising the profile of the positive challenges of practical production work. Limitations of scale of the survey sample, and the value in testing the methodology are explored within the conclusions.

## Theoretical Frameworks for Group Practice in Media Education

This review of literature surrounding practical group work teaching and learning in media education is multi-disciplinary and covers research across studies of education, media studies and management. The aim of this review has been to highlight key theoretical themes in practice and pedagogy. These include the debates regarding vocationalism within media education, the skills base of practical group production, group dynamics and strategies for teaching and assessment.

Buckingham (2003:4) defines media education as "the process of learning and teaching about media" emphasising the knowledge and skills that learners acquire as the "outcome." It involves both reading and writing about media, developing "both critical understanding and active participation" (ibid) and enabling students to be both consumers and producers of media. Following Buckingham, this chapter recognises the term 'media' as encompassing television, cinema, radio, video, photography, music computer games and the Internet.

The question of 'what is media education for?' can be addressed by examining the dichotomy of the discourses of utility and employability versus theoretical study (Buckingham, 2003, 2013; Berger and McDougall, 2013). Buckingham (2003:x) has railed against media education being repositioned and realigned with passing phases and fads of education and political policy, such as with new technology and 'creative economy.' He traces the history of media based education in the UK, both practical and theoretical, back to

policies in the 1970s aligning education with vocation, when a rhetoric of skills and training dominated political influence on educational thinking (Buckingham, 2013:23). Berger and McDougall discuss how the worth of media education has traditionally been associated with its ability to deliver employability, "a media education is only any good if it is training people for the creative economy" (2013:7).

Buckingham (2013) challenges the acceptance of 'vocationalism' as conferring status on media education, suggesting that due to the forces of social inequality it does not necessarily translate into meaningful employment. Those who do succeed in media and creative industries are, he suggests, more likely to be "middle-class youth who pursue their digital enthusiasms in parallel with traditional forms of education leading to elite universities" (Buckingham, 2013:11) as opposed to those from more disadvantaged backgrounds who study media based courses at universities that were once colleges or polytechnics. He argues that skills such as the ability to sell oneself and network, to be flexible, multi-skilled and mobile, are the social capital which best equip the workers of the present media industries (Buckingham, 2013:30).

Buckingham (2003) and Hanney (2013) both stress the importance of developing students' critical and creative abilities through the media education learning process. This chapter is less concerned with the theoretical debate around the polarisation of practical skills versus written academic work and rather focuses on approaches to learning that address practical group projects and production, acknowledging that they are a feature of media and film education across a spectrum of programmes with varying emphases concerning employability and work related learning.

Aggarwal and O'Brien (2008) draw on Ettington and Camp's (2002:357) definition of a group project as, "a graded assignment requiring students to work collaboratively across multiple class periods and involving some time outside the normal class meeting." Project based learning is broad and means different things in different disciplines and countries, involving a range of approaches, methodologies and models (Hanney and Savin-Baden, 2013:7). Its benefits include fostering high level learning outcomes, enhancing student learning by creating opportunities for critical thinking and responding to critical feedback of peers (Aggarwal and O'Brien, 2008; Hanney, 2013; Hanney and Savin-Baden, 2013). Group learning is credited with promoting student learning and achievement and increasing student retention (Treisman, 1985; Wales and Sager, 1978). Aggarwal and O'Brien (2008) highlight how group projects offer opportunities for students to learn not just about the subject, but also about each other. Group project work fosters collaborative learning, which can enhance a student's sense of accomplishment and selfesteem and can provide more realistic learning experiences for students (Aggarwal and O'Brien, 2008:2). For all the positive benefits there are also drawbacks and dysfunctional aspects to group learning and group projects. These can develop from a range of issues and are addressed further below in the work of Aggarwal and O'Brien (2008), Hanney (2013) and LaPrairie (2007).

As an integral aspect of project-based learning, group work and group learning must be critically addressed within a pedagogical frame. Approaches to group work have developed from educational pedagogies focusing on student centred approaches to learning such as Dewey's (1916) 'intelligent learning' and Kolb (1984)'s theories of 'experiential learning'. According to Reynolds (1994:26) at the core of group work is an approach that "people can learn from each other as well as from teachers and that knowledge is constructed and reconstructed as a social process." Reynolds recognises that formal education should support this process and that beyond time-based output oriented production projects, group work is also important for learning group skills that can be applied to work contexts.

Kolb's (1984) theory of 'experiential learning' is based on reflection on the observed consequences and experience of events that have happened to an individual because of his/her actions. This was seen through the lens of Kolb's learning cycle that suggests a process of doing, observation, reflection, conceptualisation and experimentation, which leads back to doing/action and experience. Kolb and Fry (1975) had previously argued that the learning cycle can begin at any one of the four points, and that it should really be approached as a continuous spiral.

With media group project education in mind, Reynolds (1994:32) applies Kolb's learning cycle into a 'design for an activity' with similar stages of experience (group activity), observation and reflection (feedback of observations by trainers or participants), conceptualization (discussion with/without trainers) and experimentation (planning for future). Key to the relevance of Reynolds' scheme is an understanding that this is a model and should not be interpreted literally. As a model, it proposes an approach to group project (or production) learning as a process. Reynolds also considers theories adapted from psychology, such as the stages of group development (Tuckman, 1965) and group behavior (Bion, 1961).

Reynolds discusses the relevance of the broader cultural and individual contexts to group projects in what he describes as the "learning community" (Reynolds, 1994: 117). This combines an appreciation of how groups reflect social processes, and where programmes "help students make sense of their learning" (ibid). This approach encourages tutors and students to share decision making and the direction of content, where individuals take responsibility for identifying and meeting their learning needs and where they see themselves as part of a community of which they and their skills are a resource which can help others. In this way students are enabled to make choices relevant to their individual needs and also contribute to each other's

learning (ibid). Reynolds identifies the appeal here for vocational or professionally driven programmes where learning is directly relevant to work.

LaPrairie's (2007) research into group dynamics and personality characteristics is situated within a behavioral psychology frame that she applies to media education. She investigates the factors that contribute to low participation in groups in media education and the conditions where groups thrive drawing on psychometric tests used in business such as the Myers-Briggs Type Indicator® (MBTI) and Emergenetics® (LaPrairie, 2007:1). She suggests the effects of group learning depend on group organisation and participative student leadership (LaPrairie. 2007:7). positive She acknowledges that teachers are often not trained in group learning strategies but refers to the prevalence of group learning from primary through to further and higher education (Johnson and Johnson, 2002). LaPrairie points to the success of individual accountability within groups, which can be encouraged through assessment of individual performance as well as the sharing of results. She suggests this also deters "social loafing" (Johnson and Johnson, 1994) where individuals allow others in the group to take on the burden of responsibilities and the 'lone-wolf' (Barr et al, 2005) work style where an individual works for him/herself rather than towards the good of the group (LaPrairie, 2007:13).

LaPrairie's work complements Aggarwal and O'Brien (2008) who investigate group work in media education that focuses on strategies to tackle 'social loafing.' They highlight the problems inherent in group work in media education where students do not necessarily have a consistently good learning experience. They identify problems associated with group project work such as students who do not work as part of the group, the 'lone wolves' who prefer to "work alone when making decisions and setting/accomplishing priorities and goals" (Barr et al, 2003: 205). Other issues arise due to differences of personality and specialisation of tasks. where the "specialisation of labor may force group members to work on separate parts of the project without exposure to the full complexity and richness of the project" (Aggarwal and O'Brien, 2008:2). Group leaders may have a dominating style that hampers the participation of others and as LaPrairie (2007) also identifies, 'social loafers' may emerge who team members' perceive to be failing to do their share of the group work.

Aggarwal and O'Brien's research suggests 'social loafing' or 'free riding' as an especially important factor in a group's effectiveness and which frequently results in poor experiences of project based group work. According to Aggarwal and O'Brien (2008:2), "It takes only one social loafer in a group to affect the dynamics of the entire group. Social loafers contribute less than their fair share to group effort but reap the benefit of other members' efforts because of a common grade for the entire group." Aggarwal and O'Brien (ibid) examine group dynamics and student satisfaction to understand better why

some students participate more than others and what strategies teachers can effect to enable more effective group project work and student satisfaction. They produce hypotheses for effective group working which centre around issues of group size (small versus large groups), group formation (whether the tutor assigns or students self select group composition), peer evaluation (students reflecting on and assessing each other's work), perception of grade fairness (how projects and broader marking schemes assess student work) and the scope of projects (their complexity and ambition). Aggarwal and O'Brien (ibid) stress the overall importance of active management by a group's tutor, and which accordingly will reflect the tutor's individual style and personality.

Hanney (2013) and Hanney and Savin-Baden (2013) further address the problematic of group work in project based work and media education directed towards vocational work based learning. Hanney (2013) places problem encounters at the heart of project based learning as pedagogy. Rather than adopting Buckingham (2003) and Berger and McDougall's (2013) scepticism of vocational training within media education, Hanney (2013:44) argues, "creative capabilities cannot be separated from professional capabilities." He calls on educators to embrace the vocational within practice based media education. He suggests it is the problem encounters that students face, such as group dynamics or the challenging scope of project that generates learning. The skills students develop, such as managing relationships and negotiating access are as essential as theory and practical or technical skills. Often hidden and described as 'transferrable' Hanney argues (2013) that by embedding reflection on the process (during the process) and by subtle managing and validation of this as a learning process, students have much to gain.

Hanney (2013) reminds us that higher education institutions and employers (in creative industries) value practice-based learning where education constructs 'situated learning opportunities' (Kane 2007) that offer real world challenges. A master-apprentice model for much practice based learning is ineffective or insufficient when faced with creative media education that require students to develop creativity, innovation and self-expression, alongside group and social skills of cooperation and collaboration (Hanney, 2013). This mirrors professional practice but within an educational context he suggests the key is in emphasising the learning experience over the professional practice (ibid). For Hanney, the key is in 'problem based learning,' which he suggests as an approach to using the inherent problems within projects as a way of promoting independent learning. This approach suggests a focus beyond the time based project specific encounter and instead embeds reflection on the process throughout the process. Assessment reflects this ongoing reflection, which is used to enhance production development.

This brief review of theoretical approaches to group practical projects in media education emphasises the importance of considering the broader contexts of learning and how these can be negotiated and incorporated into strategies for teaching. In this regard Hanney (2013), Reynolds (1994) and Aggarwal and O'Brien (2008) embrace group projects as learning processes that are vocational and ongoing. The survey of student experience discussed in this chapter addresses some of the broader contexts affecting group work and assesses their impact on the effectiveness of group projects as a form of learning.

#### **Group Production Survey: Methodology**

Drawing on Kolb (1984)'s theory of experiential learning, and which is adapted by Reynolds (1994), this study sought to explore the processes of student learning in group production projects. It aimed to assess student satisfaction on group projects and to gain a broader picture of the positive and negative challenges students encounter. As well as evaluating students' experiences of group projects, the study addressed factors affecting group projects suggested in the literature by Reynolds (1994), Aggarwal and O'Brien (2008) and LaPrairie (2007). The study applied these factors to a survey of students enrolled on media production programmes.

The survey employed qualitative and quantitative methods of data collection and analysis to examine the learning experiences of undergraduate students who were engaged in media production practical group work projects at a Scottish university during the academic year, 2014-2015. A total of 67 undergraduate students, who were enrolled on 3 media production modules as part of degree programmes at SQA Level 8, 9 and 10 were asked to contribute to the survey. Ethical approval was sought and granted through the university hosting the students and the research. The survey respected confidentiality and participant recruitment and participation was voluntarily conducted with informed consent (Rossman and Rallis, 2003). The survey was completed at the end of class time and no compensation was offered for participation. The researcher, who was a tutor on several, but not all, of the production based modules relevant to the students involved in the study, gained clearance from the subject programme leaders relevant to the modules under investigation.

The sample comprised males and females, UK and international students. All students enrolled in the modules chosen were asked to contribute. 22 of the 67 students completed the survey, which took the form of a questionnaire. The survey data analysed is based on their responses.

Students were asked to respond to questions relevant to "a group project on which you have participated during the last year." They were asked to consider group work from either factual, entertainment or drama production

projects across film and television production modules. Questions were grouped into sections – group production, group roles and the production process. The questions chosen within the survey were influenced by issues raised in the literature review and from the author's experience of supervising and leading group projects. This had raised questions regarding what factors influenced successful group work on practical projects. The questions were directed towards students' experiences of group work and sought their perspectives on the learning process. Questions reflected factors suggested by Aggarwal and O'Brien (2008) and LaPrairie (2007) that influenced group work projects such as group size, group formation, peer evaluation, perceptions of grade fairness and the scope of the project.

The survey combined questions directed towards a Yes/No answer, such as, "*Did the group hold regular meetings?*" with questions indicating a scale of response, such as, "*On a scale of 1-7, where* 1 = '*extremely dissatisfied*' to 7 = '*extremely satisfied,'* How would you rate your satisfaction with other group members' contributions?" Respondents were also given the option to comment or explanation, such as, "*Which aspect of the production process worked most smoothly and why*?"

Data from the survey was analysed within an interpretive framework (O'Reilly, 2005) with an emphasis on the qualitative commentaries informing a statistical analysis of responses. This chapter acknowledges that the survey data is based on a small sample and therefore the statistics reflect a snapshot rather than claiming to represent a broader picture. The research adopts a post-positivist approach (Ryan, 2006) that admits the subjectivity of the researcher and her role in the research endeavor.

#### **Group Production Survey: Results and Analysis**

The analysis of the survey draws on both quantitative statistics and the more qualitative comments and feedback from the students. While the statistics reflect a picture at a given moment in time, the comments allow for a more nuanced insight into the students' experiences. The comments selected below are from a range of students and are reproduced here in the context of the questions they accompanied.

Overall the results of the survey demonstrated a high level of student satisfaction with group projects as learning experiences. 86% rated their experience as '*excellent*' or '*good*' on the group production project.

#### a) Vocational Learning

Despite Buckingham (2013) and Berger and McDougall's (2013) concerns about the meaningfulness of vocational oriented courses, the students' responses reflected their appreciation of the experience of group work for its preparation for industry-associated working contexts. Comments demonstrated a sense of understanding that the group project was a process

that mirrored future experience in the work place and that this was a useful and indeed necessary preparation for gaining employment. When asked, "In your experience is group production a useful part of your learning at University? If so, please say why, and if not, why not?" one student responded,

"Yes, it helps you engage with others and experience what working in the real industry would be like."

Similarly another student appreciated the group process prepared them for future working conditions,

"I think this is a very useful part in getting to work with others in a realistic situation taking on different roles and generally working as a team."

Students recognised the vocational skills and knowledge gained but also appreciated group practical production as a form of learning, such as in the comment,

"Yes, I believe experience and practice is the best way to improve as this is how it would be in the industry and it makes you work harder as others are relying on you."

Students' comments suggest they appreciated how the learning gained in group work informs their own individual working styles and also how to work in groups. One student was clear about how the learning process connected with her career aspirations,

"Yes – to work in television it is critical to work with groups outside your comfort zone... I think that group production is very useful, it teaches you how to work as part of a team who are all aiming towards the same goal."

b) Value and Group dynamics: Marking, Meetings, leadership, roles and size

The results of the survey corresponded with the strategy promoted by LaPrairie (2007:12) of sharing accountability between the group and the individual. 68% of students found the assessment process to be fair, with 62% indicating they were assessed for both group and individual contributions. As Aggarwal and O'Brien (2008) suggest, a perception of a fair marking system into which the group work is incorporated is an important factor in successful group learning.

Students in the survey responded positively to being part of groups that held regular meetings, had strong leaders, and felt valued as members of their group. They appreciated being part of groups where roles and responsibilities were clearly demarcated with a high proportion (91%) indicating members of their group worked towards a shared goal, echoing LaPrairie's (2007:12) suggestion that teachers could promote positive interdependence within learning groups by establishing a clear group goal around which students can unite.

Students in this survey did not indicate issues with members who did not pull their weight, such as LaPrairie (2007) and Aggarwal and O'Brien (2008)'s 'social loafers' and most were satisfied with other group members' contributions. Regular meetings went hand in hand with a sense of valued participation, with a high proportion indicating that individual contributions to discussion were valued.

While Aggarwal and O'Brien (2008) indicate group size is often a factor influencing group harmony, suggesting smaller groups work better, from the survey this was not a determining factor with students indicating a range of group sizes, with a majority of groups numbering over 6 members. It would seem that the presence of other supporting indicators such as regular meetings, perception of fair marking and an environment where students felt their contribution was valued ensured group size alone was not an overriding issue.

Respondents who indicated their role lacked value or who did not always have enough to do during projects tended to suggest this was down to a combination of group size and the specialisation of roles. For students who felt they did not contribute enough, this featured as a common reason, such as from one student, who commented,

"Many roles were specific to pre or post production and because of the size of the group those people had very little to do during the production."

Another student expressed a lack of purpose and value within the group,

"... my role was extremely easy and basically pointless"

This experience contrasted with other students, for whom the specialisation of roles in large groups did not hold them back. Comments such as from the student below indicate that some were able to make the most of their role and recognised their worth as part of the group effort,

*"I feel that once I did my part I didn't have as strong a role but was still necessary."* 

Similarly where groups were small there were opportunities to assume other roles, such as for this student,

"If I was not busy in my chosen role I helped out in other areas."

The complexity of the project (Aggarwal and O'Brien, 2008) was not articulated by students as an issue but may have conspired for some with the size of the group and specialisation of roles to create difficulties of engagement and participation.

c) Tutor's Role and Student Agency

From the survey, 86% of students responded that they did not believe the tutor could have done any more to manage the group. The student survey indicated an even mixture of responses around group selection, from tutor assigned groups, student selected and a combination of the two. The survey confirmed what Aggarwal and O'Brien (2008:4) observe, "Research has also shown that when individuals voluntarily commit to membership in a group, they are more inclined to show group solidarity." Groups to which the survey students belonged that worked did so because the participants had responsibility for and agency in the creation of the group. This also allows positive working relations to develop from one project to another (Hanney, 2013), which is important for ongoing learning and for developing a sense of vocational professionalism.

### d) Group Make Up

59% of students were satisfied with the gender and age balance of production groups. There were no further comments relating to this question but the 41% of students who perceived imbalance in the make-up of the groups suggests this is an area for further attention.

The results and analysis from the survey point towards a generally positive experience of group work for students in media education while engaged with practical production projects. Students enrolled on the courses surveyed appreciated the vocational dimension to group learning. Some students navigated the complexities of group production and roles better than others and where pro-active management of the group process was in place, students worked effectively in their groups.

## Conclusion

This study has investigated both general and specific examples of group learning in media education. It has served to highlight a range of approaches to this area of pedagogy and some of the key factors relevant within a media education context. The survey demonstrates group work in media education as a positive learning experience for students who appreciate its short term and longer-term value within the process of their education and entry into careers in media production. While the survey suggested students were for the most part satisfied with the learning and teaching approaches to group work the instances where there was discord or dissatisfaction are revealing.

This chapter suggests that students are responsive to teaching and learning strategies that facilitate group project learning in media education. These strategies should be responsive to the broader social contexts in which student learning is situated and are best applied when considered as part of ongoing processes of learning that continue into an individual's working life. The strategies identified within this chapter reflect active management of groups by a tutor and the broader programme, but which allow students the agency and responsibility to encounter and solve problems.

The needs of the individual remain strong in group work and require the attention of a tutor to manage or facilitate leadership where there is opportunity for all to contribute. The organisation and management of groups across the production process is critical, balancing the real-life vocational training situation with tutor led support. This approach ensures opportunities to learn and make mistakes at all stages of the project. Critical reflection throughout the course of group projects, whether through assessment or group meetings, is a positive strategy in enhancing group learning. Students appreciate the group production project as part of an ongoing, iterative and active cycle that embeds the learning experience within the goal of professional practice.

Based on the survey of student learning experiences and contextualized by a review of literature relevant to practical group production projects and media education, this chapter would support early intervention strategies to identify and support groups where individuals are contributing less, or slipping into 'lone wolf' or 'social loafing' patterns. Students surveyed in this survey did not perceive other students within those categories, but a small number did identify themselves as contributing less, or being in roles which were worth less than others. Identifying the reasons for these circumstances is crucial if all students are to be treated equally within group project work.

This chapter suggests the specialisation of roles within media production projects as a key factor in effective group working and student satisfaction. How this is managed within the group, along with shared responsibilities and leadership is important. The research suggests students *want* to be involved in productions and that the greatest satisfaction comes from groups that include a degree of their own agency in terms of group selection.

The analysis of the survey suggests further areas of inquiry and recommendations for future research. The methodology employed has combined survey with literature review. Further research would encompass a broader scope for both. The chapter acknowledges the limitations of the scope of the survey and the small sample size. It recognises that respondents are perhaps overly skewed towards those who did have positive experiences and who are reflecting on practical production modules designed to accommodate practical group learning.

The survey has highlighted further questions around how students carry out production roles in groups. Are there differences between different genres of production within television and film production? Does the genre of production, such as Factual, Fiction or Entertainment production affect group learning? Wider recommendations for research would also include a broader investigation into diversity within group organisation, such as across age, gender, background and ethnicity. This was considered only briefly in this study regarding age and gender, due to constraints of time and resources. This reflects the iterative nature of the research process where the scope of the study has opened up over the course of investigation. This chapter would recommend further research to include teachers' perspectives on group learning and education, considering their experiences and perceptions of group learning and management. Further research should also consider the effectiveness of group projects in relation to vocational training with reflection from former students on whether this approach to learning prepared them for employment in the creative industries. Students perceive group projects as beneficial for their future – to what extent can we measure this to be the case? This could also be cross-referenced with data on the employment of former students following higher education.

This chapter substantiates the view that group learning through practical production projects is essential within media education. It suggests this approach to teaching and learning deserves continuing critical research to ensure the highest levels of student experience and success. **References** 

- Aggarwal, P. and O'Brien, C. L., 2008, 'Social loafing on group projects: Structural antecedents and effect on student satisfaction,' *Journal of Marketing Education*, 30 (3), pp255-264.
- Barr, T. F., Dixon, A. L., and Gassenheimer, J. B., 2005, 'Exploring the "lone wolf" phenomenon in student teams,' *Journal of Marketing Education*, *27*(1), pp81-90.
- ----- 2003, 'Identifying the lone wolf: A team perspective,' *Journal of Personal Selling & Sales Management*, 23(3), pp205-219.
- Bion, W. R., 1961, *Experiences in Groups New York*, New York: Basic Books.
- Berger, R. and McDougall, J., 2013, 'What is Media Education For?' *Media Education Research Journal*, p5- 20.
- Buckingham, D., Grahame, J and Sefton-Greene, J., 1995, *Making Media: Practical Production in Media Education*, London: English and Media Centre
- Buckingham, D., 2003/2013, *Media education: Literacy, learning and contemporary culture*. Cambridge: Polity Press.
- ----- 2013, 'Teaching the Creative Class? Media Education and the media industries in the age of 'participatory culture.'' *Journal of Media Practice* 14 (1) pp. 25–41 Intellect Limited.
- Dewey, J., 1916, Democracy and Education, New York: Macmillan.
- Ettington, D., and Camp, R., 2002, Facilitating transfer of skills between group projects and work teams. *Journal of Management Education, 26*, 356-379.
- Fraser, P., Wardle, J., (Eds) 2013, *Current Perspectives in Media Education:* Beyond the Manifesto. London: Palgrave Macmillan.
- Hanney, R., 2013, 'Towards a situated media practice: Reflections on the implementation of project-led problem-based learning', *Journal of Media Practice*, *14*(1), pp43-59.
- Hanney, R. and Savin-Baden, M, 2013, 'The problem of projects: understanding the theoretical underpinnings of project-led PBL' *London Review of Education*, *11*(1), pp7-19.
- Johnson, D. W. and Johnson, R. T., 2002, 'Cooperative learning and social interdependence theory,' in Tindale, R.S et al (Eds) *Theory and research on small groups,* pp. 9-35, Plenum Press: New York (first edition, 1998).
- ----- 1994, 'An overview of cooperative learning,' in Thousand, J., Villa, A. and Nevin, A. (Eds), *Creativity and Collaborative Learning*, Baltimore: Brookes Press.
- Kane, G. (2007), 'Step-by-step: A model for practice-based learning', Journal of Continuing Education in the Health Professions, 27 (4), pp. 220–26.
- Kolb, D. A., 1984, *Experiential learning: Experience as the source of learning and development*, Englewood Cliffs, NJ: Prentice-Hall.
- Kolb, D.A. and Fry, R., 1975, 'Towards an applied theory of experiential learning' in Cooper, C.L. (Ed.), *Theories of group processes*, pp33-58, New York: Wiley.

- Kolb, D., 2014, *Experiential Learning: Experience as the Source of Learning and Development*, London: Financial times Prentice Hall.
- LaPrairie, K. N., 2007, Using Group Dynamics and Personality Characteristics to Form Learning Groups in High School Multimedia Courses, PhD. Thesis, University of Louisiana at Lafayette.

O'Reilly, K., 2005, *Ethnographic Methods*, London: Routledge.

- Reynolds, M., first edition 1994/2013, *Groupwork in Education and Training*, London: Kogan Page.
- Rossman, G and Rallis, S.F., 2003, *Learning in the Field: An Introduction to Qualitative Research* (2nd edition), *San Francisco*: Jossey-Bass Publishers.
- Ryan, A.B., 2006, 'Post-positivist approaches to research' in M. Antonesa, H. Fallon, A.B Ryan, and T. Walsh with L. Borys, *Researching and Writing your Thesis: a guide for postgraduate students*, pp.12–26, Maynooth: MACE
- Savin-Baden, M., 2000, *Problem-Based Learning in Higher Education: Untold Stories*, Buckingham, UK: Society for Research in Higher Education and Open University Press.

—— (2007), A Practical Guide to Problem-Based Learning Online, London: Routledge.

- Treisman, P. U., 1985, A study of the mathematics performance of black students at the University of California, Berkeley. Unpublished doctoral dissertation, University of California, Berkeley.
- Tuckman, B. W., "Developmental sequence in small groups." *Psychological bulletin* 63, no. 6 (1965): 384.
- Wales, C. E., and Sager, R., 1978, *The guided design approach.* Englewood Cliffs, NJ: Educational Technology.