



## A focus on collaboration: Fostering Australian screen production students' teamwork skills

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### Abstract

Recent research undertaken in Australia and abroad suggests that the development of effective collaboration skills is a significant factor affecting the successful employment of graduate screen practitioners. This article outlines the results of a study that examined student response to the explicit teaching of collaboration skills in an Australian screen production course. The authors report on an empirical research project undertaken in 2015 and 2016 in the Department of Screen Arts at Curtin University, Western Australia. This involved two cohorts of second year screen production students (83 in total), and aimed to foster students' teamwork skills. The activities and resources shared with students encouraged an interrogation of contemporary models of filmmaking collaboration, the use of group contracts to identify shared values of teamwork and the implementation of activities designed to improve students' awareness of various collaboration styles. Outcomes were measured by both qualitative and quantitative means through student surveys administered at both the beginning and end of the unit of study. The results of these surveys suggest a change in student attitudes towards collaboration, particularly in regards to the value of communication. The authors aim to disseminate these findings and to encourage further discussion and study in this area. The article builds a case for more attention being placed on the explicit teaching of teamwork and collaboration skills in University screen production courses.

Keywords: screen production, screen education, collaboration, teamwork, employability.

### Introduction

In the 21<sup>st</sup> century we have seen rapid and fundamental change to screen industries around the world. The proliferation of the Internet and the development of digital technologies has revolutionised practices of screen production, distribution and consumption. Media convergence has pushed traditional media producers into the area of digital media, while crowd funding and other practices involving social media have redefined the relationship between producer and audience member. Finney (2014) notes that the *international film business stands on a delicate cusp* due to these changing technologies and user demands (p. 4), while at a more local level, filmmaker Robert Connolly has called for a *necessary reimagining of the (Australian) film industry* (2008, p. 2). Looking forward, one certainty appears to be further change that will continue to impact on the way that filmmakers develop, structure, create and distribute their work.

Given this situation, the question of how to best equip screen production students with skills to enter into, and find success in, a dynamic industry has been an ongoing concern for us as screen educators. A recent report commissioned by Metro Screen (2015) titled 'Emerging Visions: Career Pathways in the Australian Screen Production Industry' provides a useful

profile of the current screen production environment into which graduates try to obtain a foothold. The report describes a screen sector *characterised by boom and bust, project-by-project activity, contract and casual employment* (2015, p. 9). This means that for the emerging screen practitioner, a project-based career can be complex, requiring the collaboration of self-directed teams including specialists with diverse skills (p. 9). Five assets or capabilities that the report identifies as important factors for early career advancement (for both above and below the line roles), are *formal education and training, production experience, networks, personal qualities, including 'talent', and overall reputation* (p. 21). On the subject of personal qualities, it is later noted that:

*...the collaborative and high-risk nature of screen production requires people who are trustworthy and reliable, who are brave and focused, who show initiative and can problem solve, and who can work well with other people and bring out the best in the team* (p. 35).

In other words, the ability to be an effective and productive collaborator is of the utmost importance to the contemporary screen production graduate.

Furthermore, in this age of global networks and technological proliferation, it would seem that a successful career in the screen production industry now requires collaboration across platforms and beyond the range of activities associated with filmmaking in the historical sense. Ryan and Hearn describe the rise of entrepreneurial 'next generation' filmmaking projects, noting that many of these ventures are developed by collaborative teams; *some teams consist of several participants, others no more than two, but collaboration is a constant feature* (2010, p. 7). They suggest that contemporary screen practitioners now find themselves *balancing creative production and managing a business enterprise/franchise* (2010, p. 7). Likewise, Iezzi describes *the emergence of a generation of multitasking directors who are as adept on the desktop as they are behind the camera* (2006, p. 16). For Iezzi this factor, alongside the rise of viral video, the growing importance of games and interactive media, and the trend towards more in-house agency production, poses a threat to the commercial-production model that existed in the past (p. 16).

This builds a case for the explicit teaching of collaboration skills in screen production courses. On this subject of collaboration, a number of researchers and screen educators (Kerrigan & Aquilia, 2013; Hardin, 2009; Hodge, 2009; Sabal, 2009; West, Williams, & Williams, 2013) agree that effective teamwork underpins success in all areas of film and video production. Despite the upheavals experienced by the global screen industries, the fostering of students' collaboration skills is of the utmost importance for students hoping to gain employment in screen production. However, this is an area of pedagogy that is frequently absent from the University screen arts curriculum, and has received little attention in terms of both local and international research. Sabal observes educators who often stand by 'transfixed' when projects unravel due to *failed collaboration and destructive conflict*, having failed to offer timely, practical advice on this subject to students (Sabal, 2009b, p. 3). He stresses that by teaching only *the technical, aesthetic, and procedural part of production [educators] choose to ignore the foundation on which success in all the other areas rests* (2009b, p. 13). Similarly, Hodge notes the way in which young adults with limited life experience *are too often expected to master collaboration on their own, as if it were an innate skill, not a learned one* (2009, p. 19).

This article reports on the findings of an empirical research project undertaken in 2015 and 2016 in the Department of Screen Arts at Curtin University, which aimed to foster students' collaboration skills in the area of Screen Production. The following initial research question was posed by researchers and experienced educators involved in the project: How can the screen production educator approach the subject of collaboration and teamwork so as to develop students' skills and appreciation of this area? To find an answer to this question, we designed and delivered a series of collaboration-based activities to students. We then sought to discover the effect that this explicit teaching of collaboration skills had on the cohorts

involved, posing questions such as: Could certain approaches to the subject change student behaviours and attitudes to teamwork in the context of screen production? Would students find the explicit teaching of collaboration skills to be beneficial? In finding answers to these questions, we hoped to road test resources that could be used by other educators to improve graduate employability in the Australian and global screen industries.

Our research was informed by literature that looked at teamwork in the context of screen production education, and in the university sector in general. Working with two student cohorts of second year screen production students in a single semester unit of study, this project involved an in-class interrogation of contemporary models of filmmaking collaboration, the use of group contracts to identify shared values of teamwork and the implementation of other activities designed to improve students' awareness of various collaboration styles. The impact of these activities on student attitudes and behaviours was measured by both qualitative and quantitative means through two student surveys, administered at the beginning and end of the unit of study. A questionnaire developed by United States screen educator Rob Sabal in collaboration with psychologist John Bilby, was used as a research instrument within these surveys. This questionnaire had previously been administered to students working within a similar cultural and educational context in the United States by Hardin (2009), so was deemed appropriate for this study. Additional questions applied in Hardin's research were also used in the Curtin University surveys. We aim to disseminate our findings and to establish a need for further discussion and study in this area. In doing so we offer suggestions for trialled resources that can be used in the screen production classroom.

## Literature review

As reported in conference proceedings by Dooley (2015), collaboration in screen production education has been the subject of little research in both Australia and abroad. Several scholars have explored the areas of cooperative learning, collaboration and team building in the university environment (see Johnson & Johnson, 1999; Oakley, Felder, Brent, & Elhadj, 2004; Lobato et al., 2010 and Riebe, Roepen, Santarelli, & Marchioro, 2010); however, this research fails to consider the challenges specific to the screen production student. For example, Caspersz, Skene and Wu (2006) provide useful advice on the formation and management of student teams in the Higher Education Research and Development Society of Australasia (HERDSA) guide 'Managing Student Teams', but these suggestions do not address the hierarchy that is present within student production teams. Collaboration in this context means the adoption of leadership roles, such as producer or director, and the take up of other specific roles that lead to the creation of a creative product or artwork. Unrealistic student expectations in regards to these roles, and a lack of understanding of each role's demands can create conflict for the screen production team.

There is also no Australian government sponsored research that has been undertaken in this area. Recent Australian Government Office of Learning and Teaching (OLT) projects have addressed aspects of assessment in screen production courses (see Petkovic et al. 2008) and collaboration between universities to create a national postgraduate research program (see Petkovic et al., 2011); however, neither of these reports has considered the fostering of students' teamwork skills. Likewise, the Australian Learning and Teaching Council (ALTC) Good Practice Report (Orrell, 2011) does not address the issue of student collaboration in screen production.

Improving teamwork skills, conflict resolution and communication in the screen education classroom is addressed in a special issue of the *Journal of Film and Video* (2009), featuring the work of United States-based authors Hardin (2009), Hodge (2009) and Sabal (2009). This issue stresses the importance of effective collaboration skills and suggests that this area be privileged alongside the development of technical skills and aesthetic knowledge as part of the screen arts curriculum. Hardin and Hodge observe the frequent absence of explicit

teaching in this area, while Hodge (2009) notes that *a student crew cannot afford the many lost hours that result from a collective meltdown, when they cannot get past blaming others [...] and are unable to repair and restore ragged crew relationships* (p. 23). The teaching activities and approaches suggested by these three authors as a way to foster teamwork skills are expanded upon further in the methodology section of this article, where we outline the activities that we have implemented for students at Curtin. In the context of the Hardin, Hodge and Sabal's articles, however, no evaluation of these techniques has been undertaken and the impact of their teaching methods on the fostering of students' skills is based on anecdotal evidence.

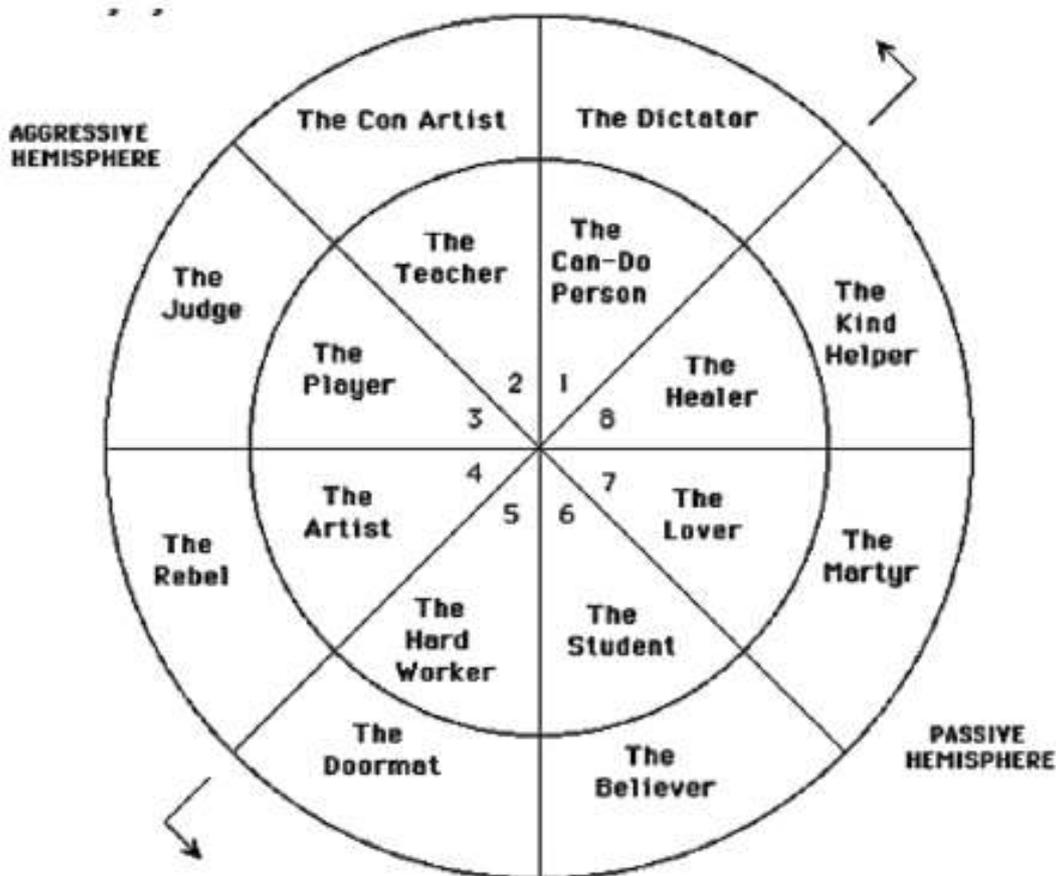
Sabal (2009a) suggests a range of reflective activities for screen production students undertaking collaborative tasks. One of these asks students to *compare themselves with several different profiles and to choose the way they most often respond in a given situation* (Sabal, 2009, p. 14). As a tool, he looks to a theoretical framework developed by John Bilby in 'Being Human: A Catalogue of Insights' (1997). In this text Bilby observes *eight principal categories of action* and that *each of us favors one or two approaches to acting in the world* (Sabal, 2009, p. 14). Bilby offers the 'Wheelbook' as a tool that identifies eight potential profiles of the screen producer (see Figure 1). Sabal and Bilby develop a multiple choice questionnaire for students based on these eight categories. This is attuned to the specifics of screen production activities and highlights *both productive and destructive actions that a student might take in a group environment* (Sabal, 2009, p. 14). Bilby's development of the Wheelbook is part of *an awareness game* that allows students to become mindful of their own manipulative tendencies, and those of others (Hardin, 2009, pp. 34-35).

The development of student awareness in regards to personal behaviours and tendencies is also explored by Ireland and Moon (2004) in their 'Group Work & Assessment in Media Production (GWAMP) Project' which ran in the United Kingdom from 2000 to 2004. These researchers consider the notion of 'academic assertiveness', which is described broadly as *a set of emotional and psychological orientations and behaviours that enable a learner appropriately to manage the challenges to the self in the course of learning and their experiences in formal education* (2004). The GWAMP Project investigates this area with a particular focus on group assessment of screen production; however, full details of this project are no longer accessible.

The area of assessment in screen production is another important factor when considering teamwork and collaboration skills. As Hodge notes, much tension is generated by the fact that screen production students *are being graded individually for their group efforts, even though they have little control or authority over their crewmates* (2009, p. 19). Sabal (2009a) agrees and offers a range of approaches to assessment, which aim to better identify individual contributions and relieve student fears of unfair recognition in this area. The area of assessment in screen production has been explored by several other scholars including Sergi (2007), who looks at peer assessment in screen production education, and West et al. (2013), who report on the development of effective group- and self-evaluation skills in a cohort from an American Centre for Animation. However, assessment falls outside of the scope of our Curtin University study, which seeks to test strategies for the development of interpersonal, communication and conflict resolution skills prior to the production process.

## **The Hardin study**

Hardin (2009) reports on a study involving the profiling of 149 screen production students over two years at Columbia College, Chicago (2009), which used the Sabal/Bilby Wheelbook questionnaire, as well as several additional multiple choice questions. Hardin's surveys were administered to students before and after the group filmmaking phases of their study, although it is not known what other instruction and coursework took place during this period of time.



**Figure 1: Bilby's Wheelbook (Source: Hardin 2009: 34)**

The Wheelbook questionnaire comprises 17 multiple choice questions with eight possible answers. The questions ask students to reflect on the personal qualities and behaviors that they bring to the screen production process. The eight answers correlate with the eight different profiles identified by Bilby. Of these eight different profiles, four are considered to involve passive behaviors (the passive hemisphere) and the others, by contrast, to involve aggressive behaviors (the aggressive hemisphere) (see Figure 1). The Wheelbook suggests that the self is composed of two sides, these involving a person's essential qualities or essence (the inner circle) and the personality traits that emerge in situations of duress (the outer circle) (Hardin, p. 34). Bilby offers 'Experiential Thumbnail Sketches' of each of the profiles, outlining qualities and behaviors that are observed as 'essence' and 'personality' (see Appendix 1). For example, the 'Can-Do Person' is brave, strong and manually competent in essence, but when placed under duress, may become a pushy or destructive 'dictator' personality (2009, p. 35). As explained by Hardin, Bilby argues that successful collaboration involves students striking a balance between the 'essence' listed in the inner circle of the Wheelbook and the 'personality' listed in the outer circle (2009, p. 35). By facilitating students to identify their own behavioral tendencies, the survey encourages collaboration that builds on the strengths of each crewmember. Students are encouraged to be mindful of their own and others' possible manipulative tendencies in various teamwork situations (Hardin, p. 35).

Additional questions in Hardin's survey were designed to qualify students' *sense of themselves and others as collaborators*, as well as to highlight a 'critical incident' or *reflective*

*moment of insight into collaboration* (2009, p. 38). The results of Hardin's surveys showed that most students chose answers that correspond with the 'Teacher/Con-Artist' profile (48%), followed by the 'Player/Judge' profile (17%) (p. 41). Notably, he found that responses to questions interrogating attitudes towards work allocation and conflict resolution tended to be correlated with the 'Con-Artist' personality. Hardin thus concludes that *in the absence of coaching or dialogue about interpersonal strategies, many students align with the Con-Artist* (p. 45). This confirms the importance of the explicit teaching of collaboration skills in screen production courses to encourage students to move beyond these limiting behaviours (p. 47).

Kerrigan and Aquilia (2013) successfully use the questionnaire on filmmaking adapted by Hardin to compare the collaboration styles of screen production students in Australia and Singapore. Their study seeks to gauge the different student cohorts' approaches to group collaboration; however, this research does not offer practical suggestions on how to foster students' abilities in this area. Instead the focus lies on measuring students' abilities for the sake of comparison, rather than for measuring improvement.

### **The Curtin University study**

The 2015 and 2016 Curtin University study involved respectively 41 and 42 Bachelor of Arts students completing a Screen Arts major, who were enrolled in the second year unit, 'Drama Production Workshop'. Student work in this unit includes several group work projects, these being initial short exercises completed in class and then the major project- the production of a three to five-minute drama film. The latter exercise would see students adopt a specific crew role and work in a team of six to seven members over a period of several weeks. All students had previously completed a compulsory first year course that introduced them to screen practice, and therefore had some experience of working in teams, and of the production process.

At the beginning of semester, students completed a questionnaire of 22 multiple choice questions. These included the 17 Wheelbook questions and five additional questions designed to gauge student attitudes and experiences of collaboration to date (see Appendix 2)<sup>1</sup>. This initial survey allowed the researchers to determine the personality traits that were characteristic of the cohort. Over the following 12 weeks of the semester, teachers of the unit then introduced a range of activities designed to place an explicit focus on the fostering of teamwork skills. These activities will be outlined below.

At the end of the semester, after formal classes had ended and the students' short films were nearing completion, the Curtin questionnaire was administered a second time. This allowed for a comparison with the initial questionnaire, to determine any significant change in student attitudes, perceptions, experience and/or behaviours. In addition to the 22 questions outlined above, the second Curtin questionnaire included an additional 3 questions asking students to evaluate the teamwork focused activities undertaken throughout the semester (see Appendix 3). In this section students were asked to provide written responses, as well as answering multiple choice questions, allowing for the collection of qualitative and quantitative data. Students were also asked two additional evaluating questions from Hardin's survey (questions 4 and 5).

Due to student absences and withdrawals, only 36 of the original 41 students completed the second survey in 2015. This factor creates an element of uncertainty regarding the analysis of comparative data, which the researchers have taken into consideration when presenting and analysing these results. This factor also led to the study being repeated in 2016, with 42 students completing both surveys in this year.

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<sup>1</sup> In addition to the Wheelbook questions, initial questions 1, 4 and 5 are also taken from the Hardin survey.

## In class activities

The activities that were designed and implemented throughout the semester were developed based on the suggestions of the number of experienced educator/researchers listed in the literature review section of this article. In deciding upon and developing activities, consideration was given to the overlapping concerns of the researchers, and the teaching experiences and past observations of educators, to determine important points of focus. The aim was to design a set of classroom resources that could be evaluated as part of the study, and then shared with colleagues if deemed successful. Available time was a factor, as the existing 'Drama Production Workshop' curriculum was already busy with workshops and seminars designed to develop students' screen storytelling, aesthetic and technical skills. Rather than devote whole weekly sessions to the subject of teamwork and collaboration skills, these activities were conducted in short sessions (30-60 minutes) throughout the semester program, and tied to the students' short drama production work where possible. This approach aimed to make teamwork an ongoing concern and 'conscious activity' (Hodge, 2009, p. 29).

Firstly, students were asked to complete a self-reflection activity on their past experience of teamwork. They were asked to spend a short period of time silently reflecting on a recent experience of collaboration (concerned with screen production or otherwise) to identify firstly, their particular contribution to the group process, and secondly, the specifics of how the group functioned. For example, was the group hierarchical or democratic in terms of the decision making process? Could the experience be considered positive or negative? Students then formed small groups to discuss their experiences, before an instructor led class discussion called on them to reach a common understanding of the requirements for a productive collaborative experience. Like Sabal's suggestion of a 'focused autobiographical sketch' (Sabal, 2009a, p. 13) or Hodge's 'student entry questionnaire' (Hodge, 2009, p. 22), this task is intended to highlight students' different approaches to/ experiences of collaboration, and identify this as a point of focus in the course.

Furthermore, when students completed the first Curtin survey in class, the task of answering the 17 multiple choice questions linked to Bilby's Wheelbook profile was followed up with a class discussion regarding the different profile types. Before submitting the hard copy survey, students were asked to note whether or not their answers identified them with one or two of the eight profiles in particular. This allowed students to *compare themselves with several different profiles and to choose the way they most often respond in a given situation* (Sabal, 2009, p. 14). Many students identified with several of the profiles, rather than a single one, allowing for fruitful discussion regarding the Wheelbook as a tool for meaningful self-reflection. Most importantly, this class discussion raised awareness of the fact that different people approach screen production in different ways, and that there may not be one 'right' or 'wrong' way to approach a particular task or crew role.

In a following session, students were presented with material aimed to deconstruct the concept of the auteur, to interrogate traditional crew roles and to examine alternative (non- Hollywood) modes of screen production. The notion of the visionary, individual 'auteur' film director has remained popular since its creation in the 1950s. Hunningher (2000) notes that, *in our culture there is a romantic perception that commercial and experimental films 'authored' by one writer/director are artistically superior to those made by collaboration* (2000, p. 172). Sabal suggests the need for students *to reflect on the constructed notion of the individual artist, on who each student is, and on what they bring to the group production process* (Sabal, 2009a, p. 7). Hodge also calls for an interrogation of leadership positions such as director and producer noting that *collaboration thrives when the creative 'leadership' is granted to whoever in the moment has the best idea or solution to a difficulty rather than who is in the most powerful role* (Hodge, 2009, p. 23). PowerPoint slides were used to spark student discussion and debate on this topic, firstly presenting statements concerning the working methods of several famed directors, and then interrogating the approaches of lesser known filmmakers

working in a variety of ways. The desire for authentic collaboration suggested the need for instructors to present a range of examples of contemporary practice in screen industries worldwide, rather than focusing on traditional Hollywood models of crew organisation.

Later in the semester, when students had first established teams for their major video production, each group was asked to submit a contract that outlined their planned approach to group communication, decision making and conflict management. This called for a 30-minute group discussion in which time students decided: how they would communicate in the preproduction, production and post-production phases (e.g. regular face-to-face meetings, Facebook groups, email); the limits and scope of each person's creative contribution and role in decision making; what they would do if a team member failed to complete their assigned work; how they would respond to a team member who took on the work of others; how conflicts would be managed; and, what grade they hoped to achieve for the completed project. This information was shared in class by each groups' producer, so that the differing approaches could be compared and considered by students. The activity encouraged students to ensure they shared common expectations of the production process, criteria for success, and to be clear of their particular role within this process. It also aimed to foster investment in the group process, as well as a sense of personal commitment from each student. Following the completion of this contract, students were encouraged to meet weekly to evaluate their progress against the criteria they had established for themselves. Sabal reports on a similar approach in his classroom, implemented so that students *might be able to choose a less manipulative and more peaceful manner of interaction* (Sabal, 2009a, p. 12). On a similar note West et al. stress the importance of identifying *key criteria, agreed upon by everyone in the group, for evaluating (student) progress* (West et al., 2013, p. 123).

Finally, as students progressed towards the production phase, a series of case studies was used to explore conflict resolution strategies. Working in their production groups, students were presented with several scenarios illustrating screen production group conflict, and asked to identify possible causes and solutions. This activity, as suggested by Hodge, is a useful way to explore a range of positive or destructive screen production group work scenarios with students (2009). Using case studies, students can role-play conflict situations and consider issues such as production safety and filmmaking ethics (Hodge, p. 27). The goal here is to allow students to reflect on the difference between useful, creative debate and destructive, non-creative conflict. Hodge also notes the importance of students listening to and acknowledging others.

Not surprisingly, we found that within groups, students responded to a single case study in a variety of ways. The following case study is presented to elaborate on this point:

*You are the producer in a film crew with people from various cultural backgrounds. Some of the crew voice that they would like to meet regularly in pre-production to do all creative brainstorming as a communal group, while other members indicate a strong preference to come up with ideas individually before presenting them to the rest of the crew. This difference in communication styles and preferred modes of working has created some discordance among the group, mostly in crew members' perceptions of what it means to be a successful team player. As the producer, what effective strategy would you employ to accommodate these differing communicative styles?*

When discussing this scenario, students interrogated the notion that individuals from different cultural backgrounds might have different approaches to collaboration. While some students suggested that all group members should adopt the approach of the majority, others suggested a variety of solutions that would allow for individuals to work in their preferred manner towards the common goal. In doing so, students reflected on their own preferred approach to idea generation in preproduction.

As Sabal notes, it is of the utmost importance that students are able to identify their own preferred ways of working and communicating (Sabal, 2009a, p. 13). As well as developing an awareness of their own style, they must, however, also recognise and respect that their peers may approach collaboration and communication differently and that this can present an opportunity for productive dialogue and creative growth. To emphasise this point during the case study discussions students were reminded of Bilby's Wheelbook profiles, and asked to reflect on how their individual personality traits and style of collaboration might be influencing their response to each case study scenario. The activity led on to a PowerPoint presentation and class discussion around strategies for conflict resolution. In particular, effective communication and being able to identify the creative potential or benefits of multiple modes of working was stressed as a tool for resolving group problems and for acquiring the versatile skillset needed to work in contemporary screen industries.

In summary, the aim as to address successful collaboration as an ongoing process over the course of the semester. This concurred with Sabal, who states that a focus on teamwork *cannot be a one-time activity* (2009a, p. 9). Like Hodge, it was hoped that students would *realise that they will continue to be confronted with a range of personalities, work habits, communication styles and creative instincts as they work in the film industry* (2009, p. 29). This approach also aligns with that of Caspersz, Skene and Wu, who agree that an equipped team has *a sound understanding of each other's strengths and capabilities early on in the team process* which might be gained through *small group discussions on targeted readings and appropriate case studies* (2006, p. 23).

## Results

### The initial Curtin surveys (beginning of semester)

The results listed here highlight initial trends across both student cohorts. (A full list of the data is in Appendix 2.)

The majority of students in both the 2015 and 2016 cohorts started the unit with an appreciation for the importance of each group members' contribution and the value of good teamwork. When asked to identify the most important factors when making a film (Q1.1 & Q1.2), 37 of 41 students (90% in 2015) and 41 of 42 students (97.6% in 2016) ranked 'good contributions from all crew members' as equally important as 'a strong vision from the director' (Q1.1). The majority of students (60.9% in 2015 and 52.4% in 2016) selected 'good teamwork' as a factor of greater importance than 'story' (17% in 2015 and 33.3% in 2016), and technical expertise (9.7% in 2015 and 9.5% in 2016) (Q1.2). By contrast, 'consideration of the audience' was favoured as the most important factor when making a film by only two students in both cohorts.

When asked about past experiences of collaboration (Q1.3) most students reported that they started the semester with either a positive experience of filmmaking collaboration in their work to date (31.7% in 2015 and 31% in 2016) or a mixed experience that was both positive and negative (61% in 2015 and 69% in 2016, Q1.3). When asked what kind of collaborator they considered themselves to be (Q1.4) most students chose 'helper and team player' (39% in 2015 and 35.7% in 2016). Slightly less popular was 'hard worker' and 'open to giving and receiving feedback'. 'Commitment' was the trait that students in both cohorts most valued in their collaborators (53.7% in 2015 and 54.8% in 2016), followed by 'respect', (19.5% in 2015 and 19% in 2016, Q1.5).

Answers to the Wheelbook questions (Q2.1- Q2.17) did not follow a discernible pattern when looking at individual student responses. The majority of students answered in a way that aligned them with several of the eight profiles, rather than a distinct one or two. However, when the cohort response to the questions is looked at in total (17 x 41 student responses in 2015 and 17 x 42 student responses in 2016), a skew towards the Teacher/con-artist profile

(21.4% in 2015 and 19.7% in 2016), followed by the Player/ Judge (18.2% in 2015 and 18.8% in 2016) becomes apparent. This result is consistent with Hardin's findings in relation to his student surveys (2009). The next most popular profile was the Hard worker/Doormat (11.6% in 2015 and 15.3% in 2016), which, unlike the two profiles listed above, sits in the passive hemisphere.

### **The second Curtin surveys (end of semester)**

The results reported here outline significant changes in student responses when comparing the surveys undertaken at the beginning and end of semester. Due to the discrepancy in numbers of students completing both surveys in 2015, comparative data related to the first two parts of the survey from 2016 will be presented and analysed as our focus. Trends for both student cohorts in regards to the third part of the survey (evaluation questions) will then be presented. (A full list of the data is attached in Appendix 3.)

At the end of semester in 2016, there was an observed increase from 52.4% to 66.7% of students who list 'good teamwork' as more important than 'story' and other factors (Q1.2). The majority of students (90.1%) still equally favour 'a strong vision from the director' and 'good contributions from all crew members'; however, an increase of three students (7.1%) now identify 'a strong vision from the director' as more important than good contributions from all (Q1.1).

When asked what kind of collaborator they consider themselves to be (Q1.4), five fewer students describe themselves as the 'helper and team player' (23.8%) and three fewer select 'hard worker' (16.7%). Conversely, an additional ten students describe themselves as being 'open to giving and receiving feedback' (50%). This movement towards the latter category is a trend that can also be observed when looking at the 2015 results. Here we see an additional nine students in the reduced cohort describing themselves as 'open to giving and receiving feedback'.

'Commitment' remains the most important trait that is expected of collaborators (45.2%, Q1.5); however, this description loses some ground in favour of 'openness to giving and receiving feedback' (23.8%) and 'hard work' (16.7%). A movement towards 'openness to giving and receiving feedback' can also be observed in 2015, with an additional five students choosing this description.

In regards to the Wheelbook questions, the 2016 students showed an increased overall skew (4.4%) towards the Teacher/con artist profile (24.1%). Students identifying with the Player/judge profile dropped from 18.8% to 16.2%, and the Hard worker/Doormat fell from 15.3% to 12.9%. Overall, there was a slight increase in responses aligned with the aggressive hemisphere in 2016 (from 55.1% to 57.9% of the total answers). See Table 1 below for more information.

**Table 1: 2016 Wheelbook Survey Results (42 students total)**

Start of semester survey	Q 2. 1	Q 2. 2	Q 2. 3	Q 2. 4	Q 2. 5	Q 2. 6	Q 2. 7	Q 2. 8	Q 2. 9	Q 2. 10	Q 2. 11	Q 2. 12	Q 2. 13	Q 2. 14	Q 2. 15	Q 2. 16	Q 2. 17	Total response	%
a. Can-Do Person/ Dictator	0	0	5	0	0	4	0	4	8	13	16	2	1	0	0	4	7	64	9.00
b. Teacher/ Con Artist	0	34	3	17	2	0	25	6	0	13	5	11	4	0	1	5	15	141	19.70
c. Player/ Judge	37	4	2	11	13	9	0	18	3	3	1	5	9	4	6	6	3	134	18.80
d. Artist/Rebel	0	0	0	4	11	7	1	0	3	0	2	18	2	1	3	0	2	54	7.60
e. Hard Worker/ Doormat	1	2	0	1	7	16	10	5	14	1	3	6	3	25	5	8	2	109	15.30
f. Student/ Believer	4	0	3	0	2	0	3	7	13	0	3	0	7	6	5	8	5	66	9.20
g. Lover/ Martyr	0	1	23	4	2	3	0	2	1	5	6	0	6	1	20	5	1	80	11.20
h. Healer/Kind Helper	0	1	6	5	5	3	3	0	0	7	6	0	10	5	2	6	7	66	9.20
End of semester survey	Q 2. 1	Q 2. 2	Q 2. 3	Q 2. 4	Q 2. 5	Q 2. 6	Q 2. 7	Q 2. 8	Q 2. 9	Q 2. 10	Q 2. 11	Q 2. 12	Q 2. 13	Q 2. 14	Q 2. 15	Q 2. 16	Q 2. 17	Total response	%
a. Can-Do Person/ Dictator	0	0	5	0	2	8	0	3	12	12	14	2	1	0	1	2	13	75	10.50
b. Teacher/ Con Artist	0	38	4	16	0	0	31	7	1	19	14	12	5	5	3	8	9	172	24.10
c. Player/ Judge	34	1	1	9	12	5	0	17	3	4	0	5	9	6	1	5	4	116	16.20
d. Artist/Rebel	1	1	0	5	8	3	0	0	4	0	2	20	0	2	5	0	0	51	7.1
e. Hard Worker/ Doormat	0	2	0	3	7	19	3	6	11	0	4	1	6	16	8	5	1	92	12.90
f. Student/ Believer	5	0	6	1	5	1	2	8	9	1	0	0	9	5	7	5	3	67	9.40
g. Lover/ Martyr	1	0	23	6	3	3	0	0	0	2	4	1	3	4	14	6	2	72	10.10
h. Healer/Kind Helper	1	0	3	2	5	3	6	1	2	4	4	1	9	4	3	11	10	69	9.70

As this table attests, it is not possible to identify a single, overwhelming trend in regards to the cohort's changed responses to the Wheelbook questions in the second administered survey, as majority movements towards the different Wheelbook profiles vary from question to question. This points to a limitation in the use of the survey as a research instrument for comparative study, as students follow no discernible pattern when responding to the 17 questions. Such a result suggests that the Wheelbook is perhaps a more valuable tool for student self-analysis than it is for tracking student development. Nonetheless, changes in responses to individual questions do show some significant trends and we offer some points of further analysis in this regard.

There was a significant shift in the number of students moving toward the Teacher/con artist profile for Q2.11. Here they were asked what they consider the essential strength that they bring to a project. An additional nine of 42 students chose 'creative imagination' as their response. As a result, those choosing the Student/believer response of 'inspiration', fell from 3/42 to 0/42, while other response numbers diminished less significantly. An additional six students also moved to the Teacher/con artist response for Q2.7 and Q2.10. These questions interrogate responses to conflict resolution, specifically, asking what the student might say to negotiate conflict so as to get what they want (answer- 'I can see all the outcomes, so the best way is ...'), and what they might do to resolve a moment of group conflict (answer- 'explain the situation thoroughly').

Conversely, on Q2.17, 'What do you like? I like...' the number of students choosing the Teacher/Con artist response of 'to discover', dropped from 15/42/ to 9/42. This was offset by increases in the Can-Do Person/Dictator response of 'to work things out', (7/42 to 13/42) and the Healer/Kind Helper response of 'to help' (7/42 to 10/42). In regards to Q2.16, 'What is most important to you?', an increase toward the Healer/Kind Helper response of 'concern for others' was also observed (6/42 to 11/42). This was offset by small decreases in all other responses to this question.

Moving on to the last section of the survey, there was an overwhelmingly positive student response to the teamwork-focused activities that were undertaken throughout the semester. When asked whether the activities had improved their filmmaking collaboration skills (Q3.1), the majority of student responded 'yes' (72.2% in 2015, 83.3% in 2016). Bilby's Wheelbook was singled out as a useful tool for self-analysis by several students. One 2015 student commented that:

*...[t]he character wheel was by far the most useful exercise. It made me analyse myself and it showed me what kind of group member I am.*

Students also commented on a new sensitivity and awareness of the skills of their collaborators:

*I have realised and continue to see everyone's strengths/skills and how they independently bring the film together.(2015)*

*Everyone has their own strengths and people need to use that to the group's advantage. (2016)*

A significant percentage of students believed that they had changed their approach to collaboration as a result of their experience in the unit (47.2% in 2015, 73.8% in 2016, Q3.2). On this subject, some students commented on the need to listen more effectively with comments such as:

*I've learnt not only to listen more but to expand on the ideas of others. (2015)*

*Before I used to be quite bossy and leadership driven, but now I like to take everyone's ideas and concerns into play. (2016)*

Conversely, one student commented on the need to:

*...contribute more verbally and offer more assistance rather than being shy and sitting on a potential good idea. (2016)*

In particular, student comments reveal a new appreciation for group discussion and listening in the preproduction phase.

Furthermore, a high percentage of students responded that they had changed their thinking in regards to other students' collaboration styles as a result of their experience in the unit (61.1% in 2015, 52.4% in 2016, Q3.3). Student comments reflect a need to be mindful of others' strengths and weaknesses, and again, the need for good communication. For example, students commented that:

*Not everyone has the same dedication to projects and therefore (you need to) talk to people more in terms of visions before making a team. (2015)*

*I have to be more mindful of others' strengths/weaknesses and adjust my style to work with these people better. (2016)*

A new appreciation for communication was also demonstrated when students were asked how they might have done things differently over the semester (Q3.4). A high percentage of students identified either increased communication at preproduction phase (47.2% in 2015, 35.7% in 2016) or increased communication at all stages of production (25% in 2015, 38.1% in 2016) as the most important factor that could have been improved. When asked how the dynamics of collaboration impact the end product (Q3.5), a majority of students in both years selected 'dynamics are managed to make a better film' (52.8% in 2015, 81% in 2016). A lower percentage chose 'dynamics are in the film or are the film' (27.8% in 2015, 11.9% in 2016), while the remaining students responded that 'dynamics can slow the process so that tasks are never completed' (19.4% in 2015, 7.1% in 2016).

## Discussion

The results of the first part of the survey suggest that most students' experience in the unit has been beneficial in terms of providing them with a new appreciation for the importance of good teamwork. The increase in students listing 'good teamwork' as the most important factor when making a film (Q1.2) reflects a change in thinking by a substantial portion of the cohort. The strong initial value that students placed on teamwork highlights the fact that most students started the semester valuing the personality traits stated as desirable in the Metro Screen study (people 'who can work well with other people and bring out the best in the team' (p. 35), and that more students gained an appreciation of these traits by the end of semester. While a lack of detailed qualitative data makes it difficult to form a conclusion in relation to the three students who listed 'a strong vision from the director' as more important than good contributions from all in the second survey (Q1.1), one could imagine that they may have encountered a poorly functioning director in their specific group context. Such an experience, and a poor end product (film) made as a result, can be devastating to the dedicated and hardworking student crew member.

The substantial increase in students who described themselves as a collaborator who is 'open to giving and receiving feedback' (Q1.4), as well as the increase in students who look for this behaviour in their collaborators (Q1.5), suggests that some students find increased value in frank group discussion throughout the production process. Hardin aligns this response with the behaviour associated with the Teacher/Con Artist profile, in that it suggests an open, 'discerning' attitude within group interaction (2009, p. 45). This is in keeping with the results of the Wheelbook survey questions, in which a majority of student responses fall into that of the Teacher/Con Artist profile.

The increase in students moving toward the Teacher/Con Artist profile for Q2.11 (What do you consider the essential strength you bring to a group project?) suggests some change in student perceptions of their value in the group context. The common choice of the Teacher/Con Artist response 'creative imagination' is an interesting one, as while a large percentage of students see this as a strong trait in themselves in the second survey, 'creativity' is the least valued trait that they expect in their collaborators (Q1.5). This inconsistent valuing of creativity could be interpreted as aligning students with the behaviour in personality of the Con Artist, as they see themselves as creative but do not particularly care for this trait in others. This suggests that when it comes to ideas, the student 'wants to be seen as 'the best'.

The increase in numbers of students choosing the Teacher/Con Artist response for Q2.7 and Q2.10 (questions that interrogate approaches to conflict resolution) also suggests potential for Con Artist behaviours in relation to this subject. Students who attempt to diffuse situations of conflict might display behaviours that are 'shrewd, cold, aloof, taking selfish advantage'. The overall increased skew towards the Teacher/Con Artist profile in the end of semester student responses suggests that, despite the raising of awareness of poorly functioning behaviours, the stake of 'outsmarting others, and being admired' is difficult to overcome. This is not surprising given the average age of the student cohort (late teens/early twenties). As Hardin notes in the discussion of his surveys, 'notoriety for the individual may, at times, trump the importance of team spirit in the production classroom' (p. 45).

By contrast, the increase in students identifying with the Healer/Kind Helper response for both Q2.16 (What is most important to you?) and Q2.17 (What do you like? "I like ...) suggests a greater value on 'nourishing, responsible, caretaking' behaviour when it comes to matters of overall 'importance' and 'like'. These results, which go against the overall trend of Wheelbook answers, demonstrate the diverse nature of student responses and the difficulty of aligning students with any one overall profile. However, the Wheelbook survey itself stands as a useful tool for student self-reflection.

In general, the third section of the survey demonstrates students' appreciation for the teamwork focused activities undertaken throughout the semester. In particular, the responses reveal a new awareness of their own strengths and weaknesses, and a willingness to engage with those of their peers. The value of good communication, especially in preproduction stages, is something that is noted by several students in their comments; specifically, the need to have more frequent and fruitful discussions at the beginning of the filmmaking process, and to make sure that everyone shares a common creative vision. The fact that a majority of students in both years acknowledge that 'dynamics are managed to make a better film' suggests that they view good teamwork as something that is not just 'luck of the draw', but must be explicitly addressed. This confirms Hardin's point that, *students are ready for a more direct discussion and education about interpersonal dynamics in film production* (2009, p. 47). The third section of the survey also confirms, again, that students value the collaborative skills that are presented as key criteria for employability by the Metro Screen study (p. 35).

## Limitations

We acknowledge the limitations of the Curtin study, which records students' perceptions of their learning and changed behaviour, rather than actual observable behaviour changes. Further research might track students as they move into their third year of study, to observe their continued development of group work skills in the screen production classroom. Such a project could gauge the ongoing impact of the activities that were offered to students in the second year unit, as well as students' continued mindfulness in relation to interpersonal dynamics. In particular, it would be of great interest to observe whether students who displayed traits of a specific 'essence/personality' type in second year continue to do so as they further develop, or conversely, whether a different trajectory all together can be adopted.

A longer study could also gauge the impact of future team dynamics on this process, to determine how strongly this factor affects each student's individual developmental path.

Another limitation of the study concerns the amount of information available to interpret negative attitudinal data received from individual students. Without access to more detailed qualitative data that sheds light on the specifics of each student's group experience, it is difficult to form conclusions about students who saw no benefit in the teamwork-focused activities undertaken throughout the semester. The addition of survey questions that interrogate the successful/unsuccessful nature of the students' end products (films), and the nature of group conflict, could further illuminate the causes of negative student experience. We acknowledge that group conflict and the creation of a poor final product undoubtedly influences students' attitudes to teamwork. While it was outside of the scope of this project, a future study might also seek outside review of students' film projects as an additional assessment measure. As an additional data source, these reviews could then be cross-examined against responses to the surveys, to uncover links between student behaviours, attitudes and final product outcomes.

## Conclusion

The survey results that are presented in this article provide evidence that an explicit focus on collaboration skills in the screen production curriculum will increase student appreciation for the importance of teamwork. As has been demonstrated, the impact of this instruction is a notable positive change in student attitudes and behaviors in regards to their own and other students' approaches to collaboration. Students also show an increased understanding of the value of clear communication in the teamwork process.

Returning to our initial research question, we conclude that in order to meaningfully develop students' teamwork skills, the screen production educator must approach collaboration and teamwork in an ongoing way throughout the semester, making the subject a clear focus of student learning from the outset. Screen production educators can play an active role in improving the dynamics of student collaboration, but as has been shown, this need not be a cumbersome activity that takes up large amounts of time in the weekly class schedule. An explicit focus on collaboration can be achieved by encouraging self-reflection and self-analysis, by putting structures in place to improve group communication and conflict resolution, and by offering different models of collaboration. In doing so, educators highlight the potential positive outcomes that can come from group tensions, when creative differences are treated respectfully and in a timely fashion. Teamwork becomes a 'conscious activity', that requires skill development, just like any other area of the screen production curriculum. As students go on to employment in an industry where technology, production processes and approaches to storytelling are rapidly changing but the need for collaboration remains or even increases, this focus on personal development has never been so important.

Sabal makes the point that *the collaborative film production class can create the kind of meaningful learning experience that transcends the specific subject matter and goes on to inform all aspects of a student's life* (Sabal 2009a, 7). He is right to note that students in screen production classes are not there simply to produce video products, but to develop as people who can form meaningful and productive working relationships with others. By explicitly teaching collaboration skills, the screen production educator can orient students towards increased self-knowledge and improve their chances of success in whatever careers they chose.

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## Appendix 1: Experiential Thumbnail Sketches from Bilby's Wheelbook

The first name of each behaviour type is its 'essence', as exemplified through its strengths and qualities. Under optimal circumstances, this kind of behaviour refers to the student in his or her natural, or 'relaxed,' state. The second, linked name is the 'personality,' as exemplified through various forms of manipulation and defences. Under extreme duress, the personality describes the student behaving in exaggerated ways. Positive and negative emotional feelings that tend to accompany each essence and personality are in parentheses. The 'stake' is each personality's underlying, motivating goal for expression. Every personality uses manipulation in order to attain various goals (or stakes).

1. *Can-Do Person/Dictator*. Brave, strong, manually competent, bold/arrogant, pushy, demanding, destructive. (Courage/Fear). In personality: wants to be respected, whether earned or not. Stake: being in control of other people.
2. *Teacher/Con Artist*. Smart, discerning, inventive, articulate/shrewd, cold, aloof, taking selfish advantage. (Solitude/Loneliness). In personality: wants to be seen as 'the best.' Stake: outsmarting others, and being admired.
3. *Player/Judge*. Balanced, disciplined, wise, playful/judgmental, cynical, sarcastic, punishing. (Humour, Fun/Anger). In personality: wants to win the argument and straighten out the other person. Stake: being right (and making others wrong).
4. *Artist/Rebel*. Sensitive, attuned, unique, moving/over-sensitive, rejected, spitefully rejective, outrageous. (Artistic Sensitivity/Jealousy, 'over-sensitivity'). In personality: wants, in everything, to do it their own way (for the beauty of it as they see it) and not be told what to do. Stake: not having 'the beauty of it' spoiled.
5. *Hard Worker/Doormat*. Modest, understanding, willing to do the hard work, empathetic/shy, self-doubting, self-effacing, lazy (Sweet Rest/Shame, Depression). In personality: wants everything to be easy. Stake: comfort.
6. *Student/ Believer*. Energetic, eagerly curious and interested, loyal, highly intuitive/hyper, phobicobsessive, believes too easily, taken advantage of (Excitement, Enthusiasm/Nervousness, Anxiety). In personality: dependent on others for advice and approval. Stake: security.
7. *Lover/Martyr*. Natural, tender, spontaneous, free/melodramatic, suffering over lost love, giving love to get love, used ('martyred'). (Tenderness Love/Sadness.) In personality: wants indiscriminately to be loved back. [The only answer to this dilemma for the many who encounter it is to learn to love with no expectations of love in return.] Stake: intimacy.
8. *Healer/Kind Helper*. Nourishing, responsible, caretaking, healing/worrying, interfering, giving help whether needed or wanted or not, undermining. (Friendly Love/Guilt). In personality: they want to have their company be safe, healthy, clean, and well-nourished. (Underlying that, they don't want their company to take any changes in their lives, else they get hurt in life, and don't come back.) Stake: having and keeping company. (Bilby).

Source: Hardin 2009:35

## Appendix 2: Student Survey 1 with Data

### Part 1: Attitudes towards Filmmaking and Collaboration

1. Which of these factors is most important when making a film?	2015	2016
	(41 Students)	(42 Students)
a. A strong vision from the director	2	0
b. Good contributions from all crew members	2	1
c. All of the above	37	41
<b>2. Which of these factors is most important when making a film?</b>		
a. Story	7	14
b. Consideration of the audience	2	2
c. Technical expertise	4	4
d. Managing logistical issues	3	0
e. Good teamwork	25	22
<b>3. How would you describe your experiences of filmmaking collaboration to date?</b>		
a. Positive	13	13
b. Negative	3	0
c. Mixed	25	29
<b>4. What kind of collaborator do you consider yourself?</b>		
a. Open to giving and receiving feedback	7	11
b. Hard worker	11	10
c. Leader	6	4
d. Helper and team player	16	15
e. Boss/overlord	1	0
<b>5. What do you expect of other collaborators?</b>		
a. Commitment	22	23
b. Hard work	4	4
c. Openness to giving and receiving feedback	5	7
d. Creativity	2	0
e. Respect	8	8

**Part 2: Wheelbook Questions**

<b>1. When you are working on a project, how do you expect to work with others in relationship to deadlines?</b>		
a. I expect results as soon as possible	0	0
b. I can wait for what I want for a long time	2	0
c. I expect results according to the arrangement	32	37
d. I don't keep track of deadlines	0	0
e. I think there is plenty of time	0	1
f. I can't wait to get started	5	4
g. I would rather things stay the same	0	0
h. I should have more time for everyone	2	2
<b>2. When you interact with others on a project, what might you say in a moment of conflict?</b>		
a. "Do what I tell you to do."	0	0
b. "I think that we could ..."	36	34
c. "Why did you do that?"	4	4
d. "Fuck that!"	0	0
e. "I'm sorry."	0	2
f. "You're right."	0	0
g. "How could you do that?"	1	1
h. "I should/shouldn't do that."	0	1
<b>3. The thing that I'd find really difficult to say to another person in my group would be:</b>		
a. "Do it your own way."	4	5
b. "I need your help."	2	3
c. "Good job."	0	2
d. "Yes."	0	0
e. "I can do it now."	1	0
f. "I don't need your help."	3	3
g. "Poor job"	27	23
h. "No."	4	6
<b>4. How would you describe the way you contribute to a problem-solving meeting?</b>		

a. I give orders	0	0
b. I provide ideas	12	17
c. I evaluate the suggestions on the table	12	11
d. I see things from a fresh perspective	3	4
e. I volunteer to do some of the hard work	4	1
f. I support the leadership	0	0
g. I care about the people involved	3	4
h. I make sure everyone is comfortable	7	5
<b>5. When you are working on a project, what is the most important element for you?</b>		
a. I want to be in control of the project	0	0
b. I want to be admired for the work	4	2
c. I want to make sure that it goes according to plan	12	13
d. I want it to be beautiful	10	11
e. I want a comfortable working environment	3	7
f. I want to be secure in my area of responsibility	1	2
g. I want to get to know the people I'm working with	5	2
h. I want to be part of the community working together	6	5
<b>6. What is the worst thing that can happen on a project you are working on?</b>		
a. It will spin out of control	12	4
b. No one will notice the great work I'm doing	2	0
c. Something will go wrong, and I won't be prepared to fix it	3	9
d. My vision of the result will be compromised by other's choices	2	7
e. I fail in my part of the project	10	16
f. I get fired	2	0
g. I end up hating my co-workers	10	3
h. Other people don't share in the privilege of the work	0	3
<b>7. When working with others on a project, how might you negotiate a conflict to get what you want?</b>		
a. "This is the deal; take it or leave it."	1	0
b. "I can see all the outcomes, so the best way is ..."	24	25
c. "I know right from wrong. I'm right, and you are wrong."	0	0
d. "To hell with the normal process; this way is better."	2	1

e.	"Sorry, I just can't do that."	7	10
f.	"I'll get someone else to help me take care of it."	2	3
g.	"How can you treat me this way after all I've done for this project?"	0	0
h.	"I should help rescue this project."	5	3
<b>8. When working with others on a project, how do you expect others to act?</b>			
a.	To show respect for me and to do what I ask them to do	2	4
b.	To have faith in my ability to get the job done	9	6
c.	To follow the procedure as it was agreed to	14	18
d.	To let me do it my own way	1	0
e.	To give me support in getting my work done	8	5
f.	To tell me the truth	3	7
g.	To respond to all of my contributions	2	2
h.	To take care of their own problems	2	0
<b>9. When working with others on a project, what kind of behaviour would you least tolerate?</b>			
a.	Co-workers who act "smart" or are "out of control"	10	8
b.	Co-workers who misunderstand what you really promised	0	0
c.	Co-workers who make stupid mistakes	6	3
d.	Co-workers who expect you to be like them	1	3
e.	Co-workers who are pushy	7	14
f.	Co-workers who don't keep their promises	10	13
g.	Co-workers who don't recognize the contribution you've made	3	1
h.	Co-workers who take too many careless chances	4	0
<b>10. In a moment of conflict on a group project, what might you do to get things on track?</b>			
a.	Assign everyone a task	10	13
b.	Explain the situation thoroughly	18	13
c.	Refer to an authority to establish what is correct in this situation	3	3
d.	Suggest something off the wall	0	0
e.	Stay out of the way	1	1
f.	Appeal for outside help	0	0
g.	Ask everyone to commit more to the project	5	5
h.	Remind everyone of the risks of various choices	4	7

<b>11. What do you consider the essential strength you bring to a group project?</b>		
a. The ability to get things done	13	16
b. Creative imagination	9	5
c. Wisdom	2	1
d. Artistic sensitivity	3	2
e. Endurance for the long haul	1	3
f. Inspiration	2	3
g. Tenderness	0	6
h. Responsibility	11	6
<b>12. What do you like about working on a film project?</b>		
a. Leading the work	0	2
b. Contributing good ideas	3	11
c. Having fun with other people	14	5
d. Creating something beautiful	23	18
e. Doing what I'm asked to do	1	6
f. Urging everyone on	0	0
g. Making sure that everyone has a good time	0	0
h. Making sure that everything is taken care of	0	0
<b>13. What do you think you've got that can help the effort?</b>		
a. The muscle	0	1
b. The education	2	4
c. The balance	11	9
d. The taste for life	4	2
e. The modesty	4	3
f. The excitement	8	7
g. The caring heart	3	6
h. The responsibility	9	10
<b>14. What can others count on you for?</b>		
a. To have the clout to do it	2	0
b. To find the smart way to do it	6	0
c. To offer frank criticism and joke	4	4
d. To be sensitive to poisonous elements	0	1
e. To work hard and to be understanding	18	25

f. To be loyal and to respond quickly	7	6
g. To care about everyone's feelings	2	1
h. To take care of loose ends	2	5
<b>15. What do you consider one of your best characteristics? "I'm . . .</b>		
a. Unflinching	0	0
b. Articulate	4	1
c. Candid	1	6
d. Innovative	5	3
e. Peaceful	5	5
f. Cheerful	8	5
g. Passionate	14	20
h. Generous	4	2
<b>16. What is most important to you?</b>		
a. Strength	1	4
b. Intelligence	7	5
c. Wisdom	6	6
d. Beauty	1	0
e. Humility	11	8
f. Energy	6	8
g. Love	3	5
h. Concern for others	6	6
<b>17. What do you like? "I like ...</b>		
a. To work things out	9	7
b. To discover	9	15
c. Games	3	3
d. Acceptance of the beauty of it	3	2
e. To rest	0	2
f. To be appreciated	7	5
g. Pleasure	3	1
h. To help	7	7

## Appendix 3: Student Survey 2 with Data

### Part 1: Attitudes towards Filmmaking and Collaboration

1. Which of these factors is most important when making a film?	2015	2016
	(36 students)	(42 Students)
a. A strong vision from the director	1	3
b. Good contributions from all crew members	5	1
c. All of the above	30	38
2. Which of these factors is most important when making a film?		
a. Story	8	12
b. Consideration of the audience	2	0
c. Technical expertise	1	1
d. Managing logistical issues	2	1
e. Good teamwork	23	28
3. How would you describe your experiences of filmmaking collaboration to date?		
a. Positive	14	16
b. Negative	0	1
c. Mixed	23	25
4. What kind of collaborator do you consider yourself?		
a. Open to giving and receiving feedback	16	21
b. Hard worker	5	7
c. Leader	1	4
d. Helper and team player	14	10
e. Boss/overlord	0	0
5. What do you expect of other collaborators?		
a. Commitment	17	19
b. Hard work	2	7
c. Openness to giving and receiving feedback	10	10
d. Creativity	1	1
e. Respect	6	5

**Part 2: Wheelbook Questions**

<b>1. When you are working on a project, how do you expect to work with others in relationship to deadlines?</b>	<b>2015</b>	<b>2016</b>
a. I expect results as soon as possible	1	0
b. I can wait for what I want for a long time	0	0
c. I expect results according to the arrangement	29	34
d. I don't keep track of deadlines	0	1
e. I think there is plenty of time	4	0
f. I can't wait to get started	1	5
g. I would rather things stay the same	0	1
h. I should have more time for everyone	1	1
<b>2. When you interact with others on a project, what might you say in a moment of conflict?</b>		
a. "Do what I tell you to do."	0	0
b. "I think that we could ..."	23	38
c. "Why did you do that?"	4	1
d. "Fuck that!"	0	1
e. "I'm sorry."	1	2
f. "You're right."	0	0
g. "How could you do that?"	2	0
h. "I should/shouldn't do that."	6	0
<b>3. The thing that I'd find really difficult to say to another person in my group would be:</b>		
a. "Do it your own way."	2	5
b. "I need your help."	4	4
c. "Good job."	1	1
d. "Yes."	0	0
e. "I can do it now."	0	0
f. "I don't need your help."	5	6
g. "Poor job"	16	23
h. "No."	8	3
<b>4. How would you describe the way you contribute to a problem-solving meeting?</b>		
a. I give orders	1	0
b. I provide ideas	9	16
c. I evaluate the suggestions on the table	12	9
d. I see things from a fresh perspective	1	5

e.	I volunteer to do some of the hard work	2	3
f.	I support the leadership	0	1
g.	I care about the people involved	2	6
h.	I make sure everyone is comfortable	9	2
<b>5. When you are working on a project, what is the most important element for you?</b>			
a.	I want to be in control of the project	1	2
b.	I want to be admired for the work	3	0
c.	I want to make sure that it goes according to plan	8	12
d.	I want it to be beautiful	7	8
e.	I want a comfortable working environment	5	7
f.	I want to be secure in my area of responsibility	5	5
g.	I want to get to know the people I'm working with	0	3
h.	I want to be part of the community working together	7	5
<b>6. What is the worst thing that can happen on a project you are working on?</b>			
a.	It will spin out of control	8	8
b.	No one will notice the great work I'm doing	0	0
c.	Something will go wrong, and I won't be prepared to fix it	6	5
d.	My vision of the result will be compromised by other's choices	0	3
e.	I fail in my part of the project	10	19
f.	I get fired	3	1
g.	I end up hating my co-workers	7	3
h.	Other people don't share in the privilege of the work	2	3
<b>7. When working with others on a project, how might you negotiate a conflict to get what you want?</b>			
a.	"This is the deal; take it or leave it."	0	0
b.	"I can see all the outcomes, so the best way is ..."	21	31
c.	"I know right from wrong. I'm right, and you are wrong."	1	0
d.	"To hell with the normal process; this way is better."	3	0
e.	"Sorry, I just can't do that."	4	3
f.	"I'll get someone else to help me take care of it."	1	2
g.	"How can you treat me this way after all I've done for this project?"	1	0
h.	"I should help rescue this project."	5	6
<b>8. When working with others on a project, how do you expect others to act?</b>			
a.	To show respect for me and to do what I ask them to do	3	3

b.	To have faith in my ability to get the job done	8	7
c.	To follow the procedure as it was agreed to	8	17
d.	To let me do it my own way	0	0
e.	To give me support in getting my work done	9	6
f.	To tell me the truth	7	8
g.	To respond to all of my contributions	0	0
h.	To take care of their own problems	1	1
<b>9. When working with others on a project, what kind of behaviour would you least tolerate?</b>			
a.	Co-workers who act "smart" or are "out of control"	5	12
b.	Co-workers who misunderstand what you really promised	1	1
c.	Co-workers who make stupid mistakes	2	3
d.	Co-workers who expect you to be like them	2	4
e.	Co-workers who are pushy	8	11
f.	Co-workers who don't keep their promises	11	9
g.	Co-workers who don't recognize the contribution you've made	1	0
h.	Co-workers who take too many careless chances	6	2
<b>10. In a moment of conflict on a group project, what might you do to get things on track?</b>			
a.	Assign everyone a task	11	12
b.	Explain the situation thoroughly	18	19
c.	Refer to an authority to establish what is correct in this situation	2	4
d.	Suggest something off the wall	2	0
e.	Stay out of the way	0	0
f.	Appeal for outside help	0	1
g.	Ask everyone to commit more to the project	0	2
h.	Remind everyone of the risks of various choices	3	4
<b>11. What do you consider the essential strength you bring to a group project?</b>			
a.	The ability to get things done	7	14
b.	Creative imagination	10	14
c.	Wisdom	2	0
d.	Artistic sensitivity	0	2
e.	Endurance for the long haul	5	4
f.	Inspiration	1	0
g.	Tenderness	4	4
h.	Responsibility	7	4

<b>12. What do you like about working on a film project?</b>		
a. Leading the work	1	2
b. Contributing good ideas	7	12
c. Having fun with other people	9	5
d. Creating something beautiful	18	20
e. Doing what I'm asked to do	0	1
f. Urging everyone on	0	0
g. Making sure that everyone has a good time	1	1
h. Making sure that everything is taken care of	0	1
<b>13. What do you think you've got that can help the effort?</b>		
a. The muscle	0	1
b. The education	3	5
c. The balance	9	9
d. The taste for life	2	0
e. The modesty	3	6
f. The excitement	8	9
g. The caring heart	2	3
h. The responsibility	9	9
<b>14. What can others count on you for?</b>		
a. To have the clout to do it	0	0
b. To find the smart way to do it	2	5
c. To offer frank criticism and joke	3	6
d. To be sensitive to poisonous elements	0	2
e. To work hard and to be understanding	21	16
f. To be loyal and to respond quickly	6	5
g. To care about everyone's feelings	2	4
h. To take care of loose ends	2	4
<b>15. What do you consider one of your best characteristics? "I'm . . ."</b>		
a. Unflinching	0	1
b. Articulate	4	3
c. Candid	3	1
d. Innovative	7	5
e. Peaceful	8	8
f. Cheerful	5	7
g. Passionate	6	14
h. Generous	3	3

<b>16. What is most important to you?</b>		
a. Strength	2	2
b. Intelligence	9	8
c. Wisdom	5	5
d. Beauty	2	0
e. Humility	6	5
f. Energy	8	5
g. Love	1	6
h. Concern for others	3	11
<b>17. What do you like? "I like ..."</b>		
a. To work things out	7	13
b. To discover	8	9
c. Games	1	4
d. Acceptance of the beauty of it	5	0
e. To rest	0	1
f. To be appreciated	9	3
g. Pleasure	2	2
h. To help	4	10

### **Part 3: Evaluation**

<b>1. Have the activities undertaken this semester improved your filmmaking collaboration skills?</b>		
a. Yes	26	35
b. No	0	1
c. Unsure	10	6
<b>2. Have you changed your approach to collaboration as a result of the unit's experience?</b>		
a. Yes	17	31
b. No	13	10
c.		
d. Unsure	6	1
<b>3. Have you changed your thinking in regards to other students' collaboration styles?</b>		
a. Yes	22	22
b. No	8	11

c. Unsure	6	9
<b>4. Reflecting on what your group film production this semester, how would you collaborate differently?</b>		
a. Increased communication at pre-production stage	17	15
b. More clearly defined tasks	8	6
c. Increased communication at all stages of production	9	16
d. Stricter deadlines	2	1
e. No changes	6	4
<b>5. How do the dynamics of collaboration impact the end product (film)?</b>		
a. Dynamics can slow the process so that tasks are never completed	7	3
b. Dynamics are managed make a better film	19	34
c. Dynamics are in the film or are the film	10	5
d. Dynamics may have no effect on the final film	0	0