Chapter 3 Methodology

3.1 Introduction.

The various methods used to investigate what parts of the assessment and evaluation processes students find valuable are outlined in this chapter together with how the data was gathered. These methods enabled gathering data in order to compare student's preference and aptitude for different assessment methods. The individual assessment and evaluation methods and the overall variety of these methods have been considered in terms how they impact on the project and how they benefit the students. In addition, how the sample of participants was selected, anonymity of participants and data protection, limitations of the study and the positionality of the researcher within the research project will be explained also.

3.2 Research approach and researcher positionality

An action research approach was taken as it is important to observe education as both educator and outsider, in the form of a researcher, to further the wider body of knowledge in education and create meaningful improvements in learning of both teacher and students (McNiff, 2001). This approach is more democratic and participatory (Denscombe, 2014) which is more in line with the Assessment for Learning ideals.

The study was qualitative in nature in order to gain a better insight into the personal response of each individual, and as the sample was limited, this qualitative approach allows the gathering of substantially detailed personal responses to the research (Patton, 1990; Denscombe, 2014). This was used advantageously in open question evaluation forms (Denscombe, 2014) and in participation observation to gather data live (Cohen et al, 2007) and to appear in a teacher role rather than researcher role to illicit a more natural classroom response (Denscombe, 2014). The qualitative, observational study was more suited to this research, as a controlled experiment style study is not reflective of the non-controlled environment nature of the classroom (Eisner, 1985). Observations were not focused on an individual topic to remain as observant as possible to students' reactions and were compiled into class reflection notes at the end of each lesson (Denscombe, 2014).

This is in line with the interpretivist paradigm where the researcher is an insider researcher (Denscombe, 2014), pertinent to this study as the research was undertaken by the teacher (Coughlan, 2007).

Audio recordings of the lessons were used gain insight into to record student's reactions and responses during drawing exercises, one on one discussions and group critiques in order to gauge student interest level in assessment methods that may not be evident in evaluation sheets. Audio recording was chosen over video recording to limit participant reaction to the knowledge of being observed (Denscombe, 2014) and for greater ease of anonymity. The audio was transcribed in its entirety verbatim for easier observance of the 'underlying structure of the talk' (Denscombe, 2014, p278) and later analysed for percentage of input each participant had in discussion.

3.2 Research activity outline and time frame

The research followed a weeklong unit of learning, a planning document of the learning in a project consisting of proposed aims, outcomes, scenario, content and lesson planning (see appendices X).

Lesson	Assessment/evaluation activity
1	Timed fifteen-minute drawing with student self-assessment in the form of marking under LC marking scheme criteria upon completion.
	Teacher assessment of these drawings using LC marking scheme criteria.
	Transcription of audio recording of class.
	Teacher observations.
2	Group discussion and definition of leaving cert marking scheme – Defining the success criteria of the unit of learning.
	Timed two-minute drawing using 'counting heads' life drawing approach with student self-assessment in the form of marking under LC marking scheme criteria upon completion.
	Timed two-minute drawing using 'drawing rough shapes' life drawing approach with student self-assessment in the form of marking under LC marking scheme criteria upon completion.
	Teacher assessment of these drawings using LC marking scheme criteria.
	Transcription of audio recording of class.
	Teacher observations.
3	Timed two-minute drawing using 'continuous line' life drawing approach with student self-assessment in the form of marking under LC marking scheme criteria upon completion.
	Timed two-minute drawing using 'drawing the skeleton' life drawing approach with student self-assessment in the form of marking under LC marking scheme criteria upon completion.
	Teacher assessment of these drawings using LC marking scheme criteria.
	Group critique exercise – student self-evaluation of drawings through selection of drawings based on perceived proximity to discussed success criteria.
	Transcription of audio recording of class.
	Teacher observations.
4	Timed fifteen-minute drawing with students preferred media and method with student self-assessment in the form of marking under LC marking scheme criteria upon completion
	Teacher assessment of these drawings using LC marking scheme criteria.
	Transcription of audio recording of class.
	Teacher observations.

3.3 Sample size and location.

Participants in the study consisted of a cohort of seven senior students in a private, fee-paying, mixed gender, second level day school in North County Dublin, Ireland. The sample size was determined by the number of students in the class. The researcher intended to investigate senior cycle students' responses due to their greater degree of comprehension for critical thinking (Bećirović et al, 2019) and experience of assessment. Due to proximity of high stakes summative examinations in the form of the Leaving Certificate exams, 6th year students were omitted to avoid undue stress, therefore fifth year class students were selected for the investigation.

3.4 Assessment methods

In order to observe student's response and aptitude to assessment and evaluation methods a variety of methods was used to investigate the advantages and disadvantages students encountered. Students were asked to complete evaluation sheets to assess themselves individually and participate in one on one discussion with the teacher in the form of guidance and feedback as they completed the lesson tasks. The evaluation sheet featured a mix of open response questions, a Likert scale responding to statements and ticking boxes corresponding to methods student would use again, in order to triangulate data to limit inaccuracies, in case open questions were leading or closed questions confined responses (Cohen et al, 2007).

In addition to these methods, group critiques and peer evaluations were used as more social techniques, as group methods can birth responses, insights and solutions that go beyond the

accumulation of the knowledge of the group (Patton, 1990). The definition of criticism and the purpose of a critique was discussed with students prior to the exercises for the students to understand objectivity and be constructive to enhance their ability to discuss and evaluate (Rowles, 2013)

Method	Advantages	Disadvantages
Group Critique	Can be formal or informal, understand different perspectives, relate intention and reception, students learn from each other and learn visual analysis skills (Rowles, 2013). Students lacking confidence in public speaking mat be more comfortable in a group (Gunday et al, 2018). Promote self-monitoring skills (Crolla et al, 2019).	Must be well facilitated, purpose of the critique must be clear, criticism and how to critique must be taught (Rowles, 2013). Students may not remember what is said and/or fixate on negative feedback (Smith and Boyer, 2015). Student's cannot solve problems without prior knowledge (Smith and Boyer, 2015)
One on one (Teacher to student)	Most effective Critique technique in practical classwork to observe student progress in detail (Gunday et al, 2018). Provides students with understanding from teacher's perspective (Gunday et al, 2018).	Students may not remember what is said and/or fixate on negative feedback (Smith and Boyer, 2015). Overpowering teacher instruction can impede learning and critical thinking (Oh et al, 2013)
Evaluation sheets	Individual exercise, not dependent on teacher (Boud, 2000). Students identify their mistakes themselves, reinforces learning (Edwards, 2007). Develop critical and reflective skills in reading and writing (Pickford and Brown, 2007).	Must be throughout the learning, if completed at end there is disconnect between evaluation and learning, summative not formative (Boud, 2000).
Open questions	Allow different perspectives to emerge (Eisner, 1985). Greater insight into a small group from detail in the responses. (McNiff, 2001). Descriptive prose more informative to discuss students work (Eisner, 1985).	Demands effort on students part, responses with little thought behind them have little value (Denscombe, 2014).
Grading	Helps focus assessors attention (Rayment, 2007). Indications level of achievement simply to students (Pickford and brown, 2006).	Measurement standards not absolute in art and design (Rayment, 2007). Leads to lesser learning as students ignore feedback and focus on grade (Black et al, 2003).
Testing	Provides observable statistics and can have reliability and validity (Eisner, 1985)	Can lead to learning being moulded to the test rather test measuring learning (Eisner, 1985). Testing is an artificial environment (Eisner, 1985). Encourages rote and superficial learning (Black et al, 2003). De-motivates low attainment students (Black et al, 2003).
Summative	Translates achievement for external understanding and large-scale comparison (Black et al, 2003).	Feedback is not provided at moment of instruction (Eisner, 1985). Evaluation procedures are not related to tasks (Eisner, 1985). Tends to put precedence for accountability for testing/results over supporting learning (MacPhail et al, 2018).
Formative	Found to be particularly constructive to art and design (Rayment, 2007). Intrinsic to art and design practice (Hickman, 2015). Benefits the student (Black et al, 2003; Greondijk, 2018). Evaluation procedure related to task (Eisner, 1985).	Important to keep focus on improving current student learning or can lead to being formative for teacher or curriculum not student (Black et al, 2003).

	Frrequent experiences can have a larger and more enduring impact (Eisner, 1985).	

In conjunction with these methods, students were asked to grade themselves in the form of written annotations on each drawing exercise, assessing themselves against the success criteria presented and explained to them beforehand. The students reflected on what the success criteria meant and what they looked like in a drawing. This aimed to give them attainable goals that, once understood, they worked towards, giving them a sense of ownership of their process (Black et al. 2003),intending to create an understanding of their zone of proximal development (Vygotsky, 1978) and build bridges from where they are to what they would like to achieve, in line with the aims of the Assessment for learning process (Groenendijk et al, 2018).

The evaluation and assessment tasks had two focuses. The first being an assessment method for students to review their work. The second aim was to assess their reflections and aptitudes to the different assessment methods, creating an opportunity to reflect on their thinking, promoting metacognition and confidence in their ability to self-assess (Pritchard, 2009). The data for these two aims materialised in the work created by the students, the grades given by themselves and by the teacher, transcripts of group critique and class activities and evaluation forms completed by participants.

3.5 Success criteria

Practice exercises for the Leaving Cert Life Drawing exam were chosen as lessons to investigate assessment approaches and Life drawing was chosen for the unit of learning due to their focused nature and clearly defined success criteria of composition, proportion, tone/line, form/volume and detail as set by the State Examinations Commission (SEC, 2019). This eliminated issues of validity regarding whether the success criteria set by this study accurately reflect the learning intentions that the students will be assessing themselves on.

Additionally, as the headings of the life drawing exam pertain to the formal art elements, they are an academic assessment of a student's technical drawing ability. The more intangible ideas of originality and creativity involve a degree of taste from the assessor and creating a definition of originality is unfair to students who could make original work from their perspective, but may not constitute originality based on the experience of the assessor (Pickford and Brown, 2006). By excluding these, the success criteria remain concrete for students analysing a marking scheme for the first time. They are objective for the assessor, removing accountability for taste.

Finally, the SEC marking scheme also removes the researcher from the role of the assessor, to an extent. This also provides the opportunity to assess the success criteria as an exercise by getting the students to consider the difference of grading work under extraneous criteria such as originality and creativity.

3.6 Permissions, Data protection and anonymity

Participation in the study was voluntary and permission was sought from both participants and their parents/guardians. All data were stored on a secure hard drive, were deleted after the study was complete and were not used for any other purpose than this thesis. The original data collections were not enclosed to other parties and only analysed findings discussed with tutors for the completion of this thesis in order to keep the development of the thesis visible and open to suggestions from others (Denscombe, 2014). The anonymity of the participants was highly

maintained by use of a number corresponding to each participant on all forms or evaluation sheets and audio recordings were deleted upon transcription to further keep identities anonymous. Participants were made aware of being audio recorded at the beginning of each class.

3.7 Limitations

There were some limitations to the study, some of which were incorporated into the research design and others mitigated to the best of ability. The sample size was limited due to class numbers, and with such a small scale no definitive answers may be drawn from the study. As an insider researcher there is potential for bias. The presence of the researcher as observer may influence participant response, however, it gives the researcher knowledge of antecedent events affecting the cohort in the classroom context which could potentially affect the study (Cohen at al, 2007) and the teacher as researcher removes the external observer to mitigate that effect on responses (Cohen at al, 2007). However, this meant students had to be reminded to answer honestly, to prevent them answering to please the teacher. Finally, the Covid-19 pandemic containment procedures prohibited a final visit intended to give students feedback on their progression, clarify responses and allow them to reflect on their accuracy of self-assessment.

3.8 Conclusion

This chapter concludes that a qualitative, interpretivist, action research approach was appropriate in order to observe the weeklong Unit of Learning designed to gather data and the individual rationales for using the in-class activities as data gathering instruments were considered. The limitations of the study, the role the researcher assumed in the classroom and the rationale for the choice of curriculum content covered to form the Unit of Learning has been discussed. Adherence to student welfare, school policy and data protection has also been outlined. The data gathered from the series of drawings, in class assessment and evaluation tasks, evaluation sheets and transcription of class recordings will be presented in the following chapter.

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