

PREPARING FOR A GAME STUDIES PROJECT

Learning to ask

At this point it should be clear that the range of both valid subjects of study and concepts and methods to address them is very broad within the multidisciplinary field of game studies. Each professor, department or faculty will make use of their individual expertise and academic history while approaching games and therefore they will each offer a slightly differently focused version of game studies. Typically, there will also be specific practical guidelines available for students to conduct their game studies work on certain line of issues and in a certain manner. Most students will soon also face the exciting freedom as well as the many challenges that are ahead of those choosing to specialize within this emerging field. This final chapter will briefly discuss some of the most central issues involved in preparing for an independent study project or other larger assignment in game studies.

A crucial step into successful research is finding and formulating a good research question. Discovering the right question and topic of inquiry might require some dedicated effort, though. The subject matter defines the phenomenon you are interested in, while the research question will determine the particular point of view and line of approach required to answer that question. Both the subject matter and the research question should be something that you are genuinely interested in and something that you would like to learn more about. Is there a game that you are curious about or some aspect of player behaviour you have observed and which has caught your attention? While considering your options, it is important to note that some questions are more appropriate for a Ph.D. dissertation subject than the first game studies project – some major questions are enough to trouble entire groups of researchers over several years. Estimating the time and effort required by researching the topic is an important consideration that will be discussed further below, in methodological issues.

One aspect to consider is also the availability of previous research on the subject. The paper should obviously not duplicate the efforts of some earlier study, but generally when still early in one's studies, it is easier to get started when there already exists some previous, roughly comparable analysis or research to discuss, criticize or use as a model for one's own inquiry. There are

many fascinating topics to research in games, and many of them are such that virtually no previous academic work exists to open the road. This is by no means a reason to abandon the subject, as your paper might be the first step on the road into an important academic study which will fill in this particular gap. But the lack of academic sources will raise the bar; there will be added conceptual and theoretical challenges ahead of the first researcher mapping an uncharted area. What is the nature of the phenomenon? How to situate it within the broader field of human behaviour or forms of culture? Which are the correct concepts to use while discussing it? This last issue is by no means trivial, since science and scholarship are socio-cultural activities in themselves, and a research paper should communicate its message to the scientific community. If works within game studies fail to take into account the long history of scholarship within multiple relevant disciplines, they will easily be perceived as ignorant and isolated attempts. Academic life is based on love of learning, and there is no better advice than to read widely and well, and to write often. For my experience, it is more common for a student in game studies to have many original ideas, but lack awareness of how existing academic work can contribute to her study, than to be over-reliant or dependent on scholarly sources.

Finding a good and productive research question for one's study is part of the hermeneutic circle of research process. As originally discussed by the German philosopher and theologian Friedrich Schleiermacher (1768–1834), the hermeneutic circle appears superficially as a paradox: in order to understand the subject of study correctly, one first has to pay attention to its various details and particulars. But it is impossible to appreciate the significance of these details and particulars correctly without first having a correct idea about the whole (Jasper, 2004: 21). During the process of study, hermeneutic inquiry actually operates more like a spiral: as more is learned about the details, a better conception of the whole is acquired, which in turn helps researcher to understand the role of each particular detail better (see Figure 8.1).

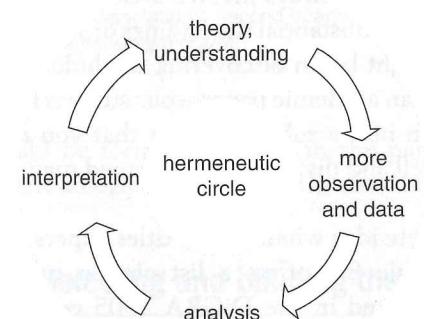


Figure 8.1 Hermeneutic circle as a spiralling process of inquiry.

The hermeneutic circle helps to comprehend why a change in the topic of paper is often a good sign. As a student learns more about the nature of phenomenon, or comes across a method or concept that opens up a fresh perspective into it, the precise focus and formulation of a research question is likely to change. Too early fixation on a particular approach means easily missing the point, as the research question has not yet been informed by the research process at this point; but the decision of subject should not be postponed too late, either. To give a very rough guideline, one could imagine dividing the available time for a game study project into three parts, and then dedicating the first third to 'pre-study' (playing games, searching of literature, reading, making notes and outlining the work), the second third to gathering and analysing data and the last third to writing and proofreading the actual research paper. It is easy to underestimate time and effort required by each of these phases. The final selection of subject matter, research question and approach is fixed during the first of these three phases, and one should always consult one's academic supervisor while considering these fundamentals – having consultations as early and as much as is needed at this stage is crucial.

One practical way of scaling down the workload associated with certain research questions is to focus the paper on a certain subset within one's field of interest. The ultimate goal might be to understand the nature of interaction in a multiplayer FPS game, for example, or the character of related gameplay experience; but the start might involve describing some of the core gameplay features in one particular map of one particular game. Even this kind of narrowed-down approach can require substantial amounts of work, as there are surely many differences between the same map as played alone, against bots of certain difficulty level, or when experienced in a deathmatch tournament against experienced players.

Some of the central principles of scientific thought are important to consider while selecting one's research subject. Particularly, be cautious while aiming to make substantial claims about 'all games' or 'all players'. Claims of facts made in academic contexts always involve a certain burden of proof, which becomes higher the more substantial the findings or statements claim to be. The motivation of study might be on discovering the hidden universals behind all games and play, but as an academic paper, your study is much more convincing if it is narrowed down into a subject matter that you really can confidently claim to know very well and discuss in an informed manner from an academic perspective as well.

To give you a concrete idea what kind of titles papers presented in scientific conferences carry, Table 8.1 offers a list chosen to illustrate the variety of research work presented in the DiGRA 2005 conference in Vancouver, Canada.

• A good and informative title communicates the general idea of what the paper is about to discuss. The title is, nevertheless, not the same as the research

Table 8.1 Selected titles of papers presented in *Chancing Views – Worlds in Play*.

Build It to Understand It: Ludology Meets Narratology in Game Design Space
Frame and Metaphor in Political Games
Shadowplay: Simulated Illumination in Game Worlds
Towards an Ontological Language for Game Analysis
Fundamental Components of the Gameplay Experience: Analysing Immersion
Push. Play: An Examination of the Gameplay Button
The Things We Learned on Liberty Island: Designing Games to Help People Become Competent Game Players
Presence Experience in Mobile Gaming
Designing Goals for Online Role-Players
Girls Creating Games: Challenging Existing Assumptions about Game Content
Understanding Korean Experiences of Online Game Hype, Identity, and the Menace of the 'Wang-tta'
Early Games Production in New Zealand
Evolution of Space Configuration in Videogames
Interactive Story Writing in the Classroom: Using Computer Games
Playing Through: the Future of Alternative and Critical Game Projects
Playing with Non-Humans: Digital Games as Technocultural Form
Learning Games as a Platform for Simulated Science Practice
The Design of Narrative as an Immersive Simulation
Opening the Production Pipeline: Unruly Creators
Who Owns My Avatar? – Rights in Virtual Property

Source: Digital Games Research Association's Second International Conference, Vancouver, Canada, 16–19 June 2005. Via www.digra.org/dl.

question which should be formulated early in the paper and which relates intimately to the methodological considerations discussed next.

Selecting and building the toolbox of methods

Individual methods can be described as means to do research and pursue knowledge, and together a set of methods and rationale for employing them form a methodology. As the interdisciplinary range of game studies includes

studies with distinctly humanities and social sciences -related approaches as well as research work with mostly technical or artistic emphasis, there is no single methodology organizing work done within game studies; rather, every researcher needs to construct their own toolbox of methods to suit their particular approach. This can occasionally be a communication problem within the game studies community, since the choice of methodology is tightly related to the overall goals of research and its underlying philosophy. Within a more mono-cultural field, the underlying assumptions of methods can easily be passed over, but in an interdisciplinary field like game studies it is important to state explicitly what kind of knowledge one is aiming at and why. Such fundamentals form the ontological and epistemological basis of research. Ontology is concerned with the existence of what games or play are fundamentally. Epistemology deals with the nature of knowing and knowledge. How can we study and learn to know games and play as they are ontologically defined? According to Thomas Kuhn (1996), a sociologist of science, these basic assumptions form scientific paradigms, consisting of accepted views on the subjects of study as well as of proper ways to structure research questions, methodologies and interpretations of results. Even if it is still too early to talk about established paradigms within or among varieties of thought in game studies, it is nevertheless useful to be aware of how even the terms used in academic contexts carry with them entire systems of thought. Thus, both the adopted methods and the language used to discuss them are interconnected as forms of social practice or as academic discourses of power.

In discussing methodology issues on the basis of their central subjects of study, there appears to be currently at least three main areas within game studies. The first area is research that principally aims to study games and their structures; the second kind of research is mostly focused on understanding game players and their play behaviours; a third distinctive area involves researching game design and development – even if in reality there is much overlap and interaction between and within the research done in all these three main areas. The disciplinary history of game studies was discussed in the first chapter of this book, and it is relevant also in this context, as scholars working in each of these three areas bring with them the methodologies typical for their original disciplines. Studies that involve analyses of individual games or cultural interpretations of their significance are often rooted in a methodology typical for the humanities, whereas play and player studies are generally informed by social sciences methodologies. Studies in game design research have a variety of methodological traditions to draw upon, including those of technical and computer sciences, and approaches in art and design studies. Some of the most interesting current work in game studies consists of attempts to fit together and synthesize these diverse traditions into unique new approaches and methodologies. This book is also promoting such efforts, perceiving important strengths and opportunities being available for game studies as a field of learning dedicated to understanding both game, game design

and players, and their dynamic relationships in the practices and processes of games cultures.

There is no room in this book to discuss thoroughly the multiplicity of relevant methods, nor their theoretical backgrounds, and the reader is advised to consult specialized volumes while starting their own study projects. The following will briefly present some important approaches and related considerations to offer an introductory overview. Particular attention here is paid to the methods related to the social sciences traditions because of their overlap, utility and application for cultural studies and design research methodologies alike.

Humanities methods

The methodological range of humanities is great, and numerous approaches have been applied to the study of games. The influence of such fields as literary and textual studies or music and performance studies has already been mentioned in earlier chapters of this book. Much of contemporary research into games will involve some of the conceptual tools or underlying philosophy derived from semiotic and structuralist thought. These traditions involve studying systems like human language, psyche, society or, as in our case, a digital game, through an analytical process which involves identifying the constituent elements and their underlying structures, as well as describing the rules for their combination within the subject of study. The process of semiotic analysis focuses on the signifying potentials in such systems through identification of its most important signs (or 'signifiers' in semiotic parlance), describing how these combine into larger structures and finally interpreting how meaning is produced within the context of this sign system.

Generally known as 'textual analysis', this kind of methodology often also involves discussing games as texts, or in textual terms as complex and multimodal signs that are constituted by other signs. When called 'discourse analysis', the emphasis is on uncovering how conventions in language (or in games, when they are considered as media) make certain ways of representing or thinking to appear as self-evident and natural, even if they carry certain power relations within them. Within such approaches, intertextual or intermedial comparisons are used to highlight hidden similarities and differences between games, or areas of media and culture, thereby extending the range of interpretation. Textual analyses are influenced to a varying degree by post-structuralist thought which rejects the structuralist search for universal cultural logic, or any single authorial meaning, and rather aims to reveal how the signification processes are always inherently multiple and conflicting. Literary and media studies have contributed to this assemblage of humanistic game studies methodologies its own conceptual tools, ranging from discussions of character, narration, dramatic arc or theme, to point of view, cut scenes and camerawork familiar from film studies. Cultural studies style of analysis often

also subjects the text to ideological critique that is informed by Marxist, feminist or psychoanalytic thought. The works of British game researchers published in *ScreenPlay* (King and Krzywinska, 2002) and *Game Cultures* (Dovey and Kennedy, 2006) are good examples of such approaches.

Such humanities disciplines as history and visual art studies also have much to contribute to the methodological range of game studies. There are many special challenges related to the archival and identification of software and hardware histories, and the systematic approaches developed within library and information studies are useful for such studies. The study of language, literature and beliefs created and circulated among game cultures can also draw upon the methodological traditions of various humanities disciplines. This book has, to a large degree, been influenced and informed by games research work done using humanistic methodologies, while the impact of the next two groups of methodologies has also been great.

Going back to the sample assignments featured earlier in this book, particularly 'Remediation of a non-digital game' (Chapter 3) is based on a humanities approach: it involves adopting an analytical stance towards games, making analytical distinctions between such key elements as game controls, game mechanics and visual representation of the game interface. It also involves comparative structural analysis, since it requires comparing non-digital game with its digitalized version. Also the assignment 'Alternative Games History' (Chapter 4) with its historiographic approach is rooted in the humanities.

Social sciences methods

The methodological toolbox available from within traditions of social sciences into game research is equally extensive. The main difference to humanities is the influence of natural sciences and how scientific method is often perceived within this tradition. Where research in humanities is generally strong in providing original and insightful interpretations about the meaning of the studied phenomenon, social sciences can provide some verifiable facts about the use or influence of this phenomenon. Verification is at the heart of classic scientific method, which is rooted in a view of science as study of empirical, objectively observable reality. However, not all social scientists adhere to this view, also known as positivism. Deriving from such nineteenth-century early social scientists as Auguste Comte (1798–1857), positivism holds to the view of science as logical and coherent structure of statements that can be confirmed or falsified by empirical tests or observations and that results attained through such methods are independent of culture or the person doing the observation.

Studies into the effects of game playing generally rely on scientific method and involve setting a hypothesis to explain and predict how a relation between certain measurable variables function and then creating an experiment to support or falsify the hypothesis. While many social science studies involve

observations in natural settings, preparing a controlled experiment requires two groups of test subjects, where the other group acts as a control sample compared with the results derived from testing the experimental sample. Both groups are tested before and after the treatment, and experiment is normally conducted in a laboratory to eliminate any extraneous effects. A typical laboratory research may involve, for example, comparing how much aggressive behaviour can be observed in a group of children who spent some time playing a violently themed digital game to the behaviour of a control group who was watching television or playing a non-violent game. While laboratory studies usually have good internal validity (the design of experiment itself is scientifically solid), they may have problematic external validity, which means that results derived in a laboratory are not necessarily generalizable to the real world. The researcher also has to be careful while conducting the statistical analysis of her data; for example, the proof of strong correlation between two variables does not necessarily imply their causality, as the explaining causal link may be in a third variable hidden from the researcher. Also, proving the reliability of measurements does not automatically mean their validity, since a test may be reliably measuring something that is actually not a valid measure for the phenomena research was supposed to be focusing on.

One particular method often used in social sciences to derive information on the attitudes and behaviours of larger populations is survey. Many surveys involve providing large groups of people with a set of questions, usually in the form of a questionnaire. A caveat, though, people are not very reliable in answering questions that ask them to quantify precisely their behaviour, like reporting the exact time they spend daily playing games, nor do they always answer truthfully to what they feel as sensitive personal questions. A survey can be administered by the researcher over the phone, or face to face in the street, as is common for various marketing surveys. A survey study can also take the form of a self-administered survey questionnaire through mail or by the Internet. While creating a survey to provide data for a game studies project, standard questionnaire design guidelines apply; you must first clarify the objectives of study to yourself, think carefully how the answers will be analysed, write as clear and unambiguous questions as possible, while avoiding biased language or leading questions. Open questions provide the informants with more freedom, but require much more work to analyse than closed questions where the informant is required to choose from alternatives given.

It is also a good idea to test the questionnaire by doing a small-scale pilot study and try analysing its data, as this will help detecting any flaws in the survey design. Note also that the longer and more detailed the survey is, the lower the response rate is likely to be. In game studies, as in general, it is also worth considering carefully how to distribute and focus the survey. It is relatively easy to get many responses to an online questionnaire by advertising it in game-related websites or discussion forums, but this kind of random collection of

answers is likely to be biased to those who are active participants in those sites and interested in your subject of study. A representative sample requires first identifying the population which is the subject of survey; for example, all 15- to 20-year-old females in Finland. As it is usually impossible to survey a whole population, a sampling frame needs to be set that is representative of this population. In our example, the Population Register Centre of Finland may be used to acquire a random sample of names and addresses for posting the survey, but this kind of service has an associated cost. There exists statistical guidelines for determining the appropriate representative sample size, but it is important to also take into account that low response rates may necessitate respectively growing the size of the target sample.

Statistical analyses are an important part of quantitative methodology within the social sciences, but there exists also many important traditions of qualitative studies. This broad ‘alternative’ field of social sciences is an area where social sciences cross paths with the traditions of humanities and cultural studies. Qualitative research is concerned with the experiences and meanings people attach to phenomena, and therefore it takes cultures and real-world contexts into account. Rather than aiming to operationalize the research questions into mathematically quantifiable variables, knowledge provided by qualitative research is often narrative and illustrates how different groups and individuals experience life by observation and dialogue. Qualitative research uses various ‘rich’ data: people’s speech, texts, photos, other media or participation in their activities. All this contributes to providing the researcher with a holistic understanding about the whole surrounding the particular phenomenon she is interested in analysing. Pertti Alasutari (1995: 7) has compared qualitative analysis with riddle-solving; the analyst will look at the rich data and carefully check for clues, sometimes coming up with a surprisingly new way to combine them and explain the evidence.

Interviews are one of the central methods for qualitative social sciences. Also quantitative research may use interviews, as the face-to-face administration of survey can also be interpreted to be a structured interview. Semi-structured interviews are more common in qualitative research. This type also relies on a pre-designed framework, but rather than repeating the same detailed questions to every informant, a semi-structured interview is based on a list of topics which set the themes for interview. A completely unstructured interview takes the form of free-flowing discussion between the informant and the researcher. Semi-structured and unstructured interviews have the benefit of informality as they encourage two-way communication. Both individual and group interviews are used; group interviews of people selected within a certain demography are in marketing research called ‘focus groups’. On the other hand, the analysis of interview materials requires more work than is typically the case for survey-style questionnaires. The interviewer takes notes while making sure the interview covers all topics listed in the interview framework, but recording the interview is also common. A recorded interview can then be transcribed

into text, and subjected to detailed content analysis, which can use techniques of textual analysis mentioned above, or adopt a more quantifiable approach with a detailed coding scheme and possibly the use of dedicated analysis software (like NUD*IST or ATLAS.ti). Transcription and analysis of interviews is work intensive and usually qualitative studies using this approach do not aim to produce statistical proof, and sample sizes are rather small. Increasingly, game researchers are also combining qualitative and quantitative approaches, thereby profiting from their different strengths. An interview is an efficient way to find out how certain people are thinking about the research themes and provide the basic understanding necessary for constructing a larger-scale survey instrument. The downside is the possible over-reliance on anecdotal evidence that the interviewed people provide, or inexperienced interviewers imposing their own preconceptions on to the informants. Having a team of interviewers working together and discussing their findings and interpretations generally improves results, as does doing practice interviews before starting the actual study.

Other qualitative social science methods that are useful for studying players and game cultures involve inviting informants to keep a diary of their game playing practices. Particularly for getting a better idea of how play interfaces and mixes with other everyday activities, a time-diary method provides useful data. Traditionally in a time-diary approach, informants are recruited for keeping a detailed, hour-by-hour record of their activities during a certain day or during an entire week. This requires a significant contribution of effort on part of the participants and the final cooperation rate can easily be rather low. A more free-form diary-keeping method may be used to stimulate informants to write about the reasons and feelings behind their activities with games, which also provides useful starting points for a later, in-depth interview. Another interesting group of methods relying on informant creativity are the various biographical methods, which provide more longitudinal, qualitative information about the role of games and play in the course of human lives. With some specific, motivational and instructive guidelines, the researchers invite informants to contribute life stories focused on their experiences with games and play. Autobiographical accounts are rich and deep sources of information, and can contain the sum of individual experience and reflection on the topic over several years or decades. As such they call for a certain respect and strictly ethical approach from the researchers’ part – the ethical guidelines of research of course apply always, regardless of methodology. The means of textual or discourse analysis can be used while analysing life stories, and many social scientists also rely on narrative methods developed within literary studies. While analysing and interpreting biographical accounts, the researcher needs to be aware that human memory is not perfect and that fantasy commonly mixes with real past experiences. Nevertheless, biographical accounts are a popular and important source of information about how individuals view their actions, norms, values and life events.

Lastly, ethnography is an important social sciences methodology, derived from cultural and social anthropology. A central part of doing ethnography is the field work, which means the researcher observing, participating and experiencing first-hand the life of people she is interested in analysing. A game studies ethnography may involve participating in the life of an online guild or observing the behaviours, norms and customs typical for a group of people who are frequent patrons in a location like a local games arcade. Keeping an open mind is important for an ethnographer, but it is also important to develop a rigorous routine for documenting events, social relationships and discussions in field notes or journals in order to provide evidence for any conclusions. When reporting, an ethnographer is both scientist and storyteller, being ideally able to act as a conduit for the ‘insider’ view of a particular culture to interface with the systematic and objective requirements of scientific knowledge.

Many chapters discussing recent studies of game players in social science or psychology are included in *Playing Video Games: Motives, Responses and Consequences* (Vorderer and Bryant, 2006), while interesting ethnographies of certain gamers and game cultures are provided by *Shared Fantasy: Role-Playing Games as Social Worlds* (Fine, 1983), *Play between Worlds: Exploring Online Game Culture* (Taylor, 2006) and *Synthetic Worlds: The Business and Culture of Online Games* (Castranova, 2005). An example of using surveys to probe the behaviours and attitudes of online game players is the ‘Daedalus Project’ (Yee, 2003–2006).

Among the sample assignments featured in this book, particularly ‘Game Culture Survey’ (Chapter 2) is based on a social sciences approach. It involves doing small-scale ethnographic field studies, making notes and organizing the findings concerning the role of games in lives of different groups of people into a structured report.

Design research methods

The third methodology group introduced here is related to games being software products as well as creative industry. Game research can make a contribution in the development of games by opening up alternative directions for game design or by providing important feedback from users to the developers during the game production. Design research also involves the processes of ‘meta-design’, or researching the game design methods and their underlying logic. Also the studies into the cultures of game design and detailed analyses or critiques of the operations within the game industry are related to this area of game studies. It should nevertheless be noted that while humanities or social sciences are established academic fields, evaluated through their contributions to scholarship and peer review publications, the main emphasis in game design is on producing games rather than research papers. Still, there is much room for fruitful overlap between research and design.

The analysis of economics, internal company cultures, production practices and marketing strategies of the games industry mostly falls beyond the scope of this book, but should nevertheless be mentioned here. An approach into these directions can profit a great deal from classic studies of the entertainment and electronic industries, such as *Doing Cultural Studies: The Story of the Sony Walkman* (du Gay *et al.*, 1997). Looking at the construction of consumer products as complex combinations of particular conditions of ownership, investment, design choices, technological innovation or appropriation, as well as of strategies of hype, advertisement, distribution and market launch, this kind of study can help to demystify the games industry. The commercial realities that underlie digital games as electronics and software products are also explored by Stephen Kline *et al.* (2003: 297) in their work *Digital Play*, while they also point out the potential for conflict as a multitude of voices, ranging from ‘brand-loyal gamers to dissident hackers, to concerned parents, to other media industries and beyond’ compete. Aphra Kerr’s (2006) analysis of digital games as texts as well as a cultural industry complex tangled into global networks and multiple cultures of production is also useful in uncovering the larger image that is necessary for understanding the contexts where game design practices take place. Much of the originality and diversity of digital game design is nevertheless rooted in innumerable innovations created daily in processes of game design, and studying them is an important part of game studies. It is important to realize that research that has an effect on how games are designed is going to impact the overall direction of digital culture.

Game design research can make use of many of the methods discussed above, either directly or as applied into the purposes of deriving information about the way certain designs or changes in them are experienced by different players. There are established practices of play-testing and quality assurance within the game industry, which seek information about the learning curve, game-balancing issues and software bugs that plague products under development. Researchers working for Microsoft Game Studios (Davis *et al.*, 2005) have described the process they use to play-test different game titles as a set of procedures which goes beyond finding and reporting bugs or usability problems. This method involves standardized means for inviting a group of about thirty participants from the game’s target audience to play it for an hour, after which participants fill in an electronic survey questionnaire. The questions used are focused on asking about ‘fun’ of particular gameplay elements or mechanics, like ‘How fun was combat?’ or ‘How fun was Quest 1?’ The survey also includes other gameplay-related questions that address players’ experiences with the music, graphics and sound effects in the game. The authors emphasize that their approach is motivated by the industry needs for quick and efficient testing methods; they use standardized testing conditions, questions and a relatively large sample size while iteratively testing multiple games, allowing the researchers to do statistical analyses and comparisons between games rapidly and with a low cost.

The player experience with game can also be studied with the help of focus group interviews, observations, ethnography and usability research methods. Some computer game designs will allow the collection and analysis of log files, which can point out certain patterns, like players repeatedly failing at a certain point of the game. The methodology of usability engineering includes a range of approaches, where laboratory testing includes an important group of methods which can also be applied in game studies. A video recording of events captured from inside the game can be combined and synchronized with another video feed which records the expressions, gestures and verbal comments made by players during the play, opening many opportunities for later analysis. However, while traditional usability testing involves measuring the efficiency and ease of use for utility software, game studies needs to take into account the special character of games as enjoyable challenges, as well as the wide range of different player preferences and types of immersion discussed in this book. A combination of multiple methodologies is again recommended: for example, having both questionnaires, interviews and recordings of gameplay will provide the researcher with a rich array of data – with the downside of substantial challenge in analysis and interpretation.

Approaches that involve designing games are closely related to the field and processes of software engineering. A rapid prototyping technique might involve 'extreme programming', for example, where program code is developed through improvisation, starting from the 'simplest thing that works', adding complexity when it is required. But not all approaches to game design require programming at all. Both the initial game concept document and the first experiments in core game mechanics can be designed with pen and paper. The conceptualization phase can be supported by multiple different brainstorming techniques, which may involve team work, followed by editing and refining phases. The game design can also draw inspiration from different sources, including 'game design games' (Järvinen, 2005) or collections of 'game design patterns' (Björk and Holopainen, 2005). Many of the core game rules and interactions can be first implemented into a board or card game, or social game with an innovative use of physical objects and environments. This phase can already tell much about the dynamics of the game concept and may inspire redesign. Some aspects of the game concept can be illustrated or narrated in short scenarios which can then be researched with the help of focus group interviews. Such early steps can provide designers with a better idea about the reactions and attitudes of players early on the design process, but they are not actual play-tests. When a playable version of software prototype is available, the design process involves further iterative rounds of play-testing and redesigning, checking the design for functionality, internal completeness and balance, as well as for making sure that the controls, interfaces and the core activities which players are engaged with are enjoyable enough.

There exists a broad range of technical literature on digital game development, but theories and methods of game design are not addressed by

all of them. Various game design approaches are discussed in the wider context of digital design and the study of design in *Design Research: Methods and Perspectives* (Laurel, 2003). *Rules of Play: Game Design Fundamentals* (Salen and Zimmerman, 2004) includes a thorough discussion of its core concepts, including rules, play and culture, while *Game Design Workshop: Designing, Prototyping and Playtesting Games* (Fullerton et al., 2004) is useful in introducing several practical approaches into game conceptualization and design.

In this book, both assignments 'Concept Design for a Real-Time Board Game' (Chapter 6) and 'Reality as a Game Board?' (Chapter 7) involve creating an experimental game design idea and writing a game concept document. Optionally, they can also be taken into prototype design phase by using paper prototyping or some other suitably lightweight and quick approach.

Game playing as a method

The last but most crucial element in any methodology of game studies involves playing games. Any student who is serious about gaining deeper expertise and understanding in the field of game studies needs to play a wide range of games. This may appear as a welcome suggestion and a pleasurable way to spend the entire term. However, analytical appreciation involves being able to communicate and critically examine one's experiences with the subject of study. Thus, analytical play as part of one's studies is different from leisurely play. Such more 'utilitarian' playing involves making notes and relating games to wider contexts of historical, conceptual and social range of thought that constitutes game studies and game cultures in their reflexive form. It may still be fun, but becoming a professional in game studies also means that game playing becomes a part of one's work. Playing as a part of research should not be limited to researcher's own favourites, but it may involve getting acquainted with an entirely new genre that is at the focus of study and learning the language and ways of thinking of those people who form its active player community. Playing is thus part of a larger range of activities which all contribute to the overall qualitative understanding of studied phenomena, necessary for formulating well-informed research questions.

The analytical play needs to be responsive and observant of the game in several levels. It involves all the key concepts discussed within this book and probably will also involve developing more detailed distinctions for needs of that particular object of study. To start with, it is useful to differentiate between the *structural gameplay analysis*, which responds to the core gameplay, and *thematic analysis* of games. While the first is derived from analytical play by paying special attention to how game rules and interactions with game objects and other players are structured, the latter involves studying those parts of the game we have called in this book its shell. Structural understanding of a game is important for any analysis, since it involves those parts and processes

which have strongest influence on people engaged with its actual gameplay. The representational aspects, game world, characters and fiction of games are also very important, and these have an emphatic significance to the interpretations concerning game's cultural character. A thematic analysis highlights the experience of players sensitive to the symbols and messages conveyed by game's operation as a cultural medium. Such thematic understanding deals with the central idea or message as revealed by the total game experience and its interpretation by an analytical player. There are also added dimensions of play that become appropriate, depending on the genre, research focus and methodology in question; for example, *social analysis* of game-related communication networks and communities is a relevant part of analytical play within many online multiplayer games.

It is likely that every critic of games will develop their own style of playing and appreciating games, and it should be pointed out that a game professional's approach is not necessarily a typical way of playing. Indeed, it is worth considering if there exists a 'typical' player or play style; every player has their individual history and preferences, having roots in their personality and experiences. Learning to understand and appreciate the diversity of players, play styles and associated experiences is crucial for developing a more encompassing and inclusive comprehension of games and their multiple roles within different game cultures.

Espen Aarseth (2003) has distinguished between seven different 'strata' or layers in engagement that are open for the analytical player:

First, we have superficial play, where the analyst plays around with the game for a few minutes, merely to make a quick classification and get a 'feel' for the game, but without learning interface commands or structural features. Then there is light play, where the player/analyst learns enough to make meaningful progress in the game, but stops when progress is made. Then there is partial completion, when a sub goal or a series of sub goals has been reached. Total completion is of course only possible in games with defined endings, and not in games such as *Tetris* or *Space Invaders*. Repeated play and expert play are strata that usually come after total completion, unless the game genre is so familiar to the analyst that no substantial learning is necessary. The expert player is also, typically, a winner of multi-player games. The seventh stratum, innovative play, is seen when players invent totally new strategies and play the game not to win, but to achieve a goal by means that are not previously recognized as such by other players.

It is important to be aware of the great range of player engagement as well as differences in skill level, while it is equally important not to make such differences in play style or mastery into a scale between more and less significant play experiences. There are many players who remain at the level of superficial or light play in most of their game playing but, nevertheless, have their personal relationship with the experience of gameplay, albeit more casual. Aarseth (*ibid.*)

also calls for a balance between free play, analytical play and research in 'non-play' mode. Playing games is an essential part of being a scholar in game studies, but it should be combined with a selective and thoughtful use of other sources for information, such as observing others play or interviewing players.

All game playing requires time and practice for a player to develop their skills, no matter what kind of game is in question. But some research projects are more intensive undertakings than others; particularly adopting an ethnographic approach into some of the virtual game worlds will involve playing the game for extended periods not only to become familiar with its core gameplay mechanisms and different areas of the game world, but to gain a deeper insight in the social life taking place in various game servers and online forums. But while possibly arduous, they also feature their fair share of adventure and challenge – humorously illustrated by a quote from Edward Castranova's field diary on his humble beginnings in the world of *EverQuest*:

Journal entry, 20 April. I have made my first kills, mostly rats. They did me a great deal of damage and I have been killed several times. I do return to life but it is a pain to go through. Nonetheless, I have to attack the rats. I need money to buy edible food and water, and rat fur, and other similar junk, is about the only thing I can get my hands on that the vendors will pay money for. I was hoping to do more exploring and less work, but a woman named 'Soulseekyre' told me that beyond Freeport lie biots so powerful they could kill me instantly. My problem is that I am under-equipped. Soulseekyre was wearing an elaborate suit of armor and she had impressive weapons. I have been basically naked, carrying only a simple club, a caveman in a world of cavaliers. My poverty is oppressive – no amount of rat fur is sufficient to buy even a simple tunic at the ludicrously high prices of the merchant biots. Fortunately I just killed enough rats to gain a 'level' of experience, and I seem to have become a much more effective rat killer. (Castranova, 2001.)

In this book, assignments 'Gameplay Experience of a "Classic Game"' (Chapter 4), 'Real-Time and Turn-Based' (Chapter 6) expressly involve engaging in analytical game playing, but it is difficult or impossible to do most of the other assignments without some kind of analytical play or replay to refresh one's memories.

Writing for an audience

The subject matter, research question and methodology issues discussed above each contribute to the way the final research paper needs to be structured. The presentation of study is not an external part of the research process, but at its very core, science and scholarship are communication of knowledge, and work that does not convey its message to anyone does not exist as far as academic community is concerned. Similarly, solid argumentation, logical

structure and clear language will reveal the merits of research work to the reader. It should also be possible to recognize the limits and possible weaknesses in the work. It is not a fault of scholarship not to cover every issue in a research field; on the contrary, these kinds of gaps need to be recognized as opportunities for further research. Preparing for comments and critique is therefore an integral part of study. It is easy to perceive the finished paper to be the final and complete word on the matter, but there are always alternative viewpoints or approaches that can contribute or even question the claims of the research. A central part of any progressive view of science is the concept of dialogue, where it is in the joint interests of academics to make research stronger by questioning, testing and building upon each others' work. This fundamental principle should also guide the work and debate in classroom and in seminars. Presenting a game studies paper should not be a deathmatch.

While thinking about the overall organization of any course assignment, the first thing is to check again all the provided instructions and what the course supervisor is saying. There are established conventions in presentation and use of references that vary between universities and departments. A key part in organizing your presentation is identifying the main argument. After doing your pre-study, reading all relevant literature and doing your own research, what is it that you want to say? Why is it interesting?

Game studies is a broad and diverse field, and an author cannot rely on the homogeneous background in one's audience as in some other fields. Thus, it is a good idea to take less as granted, and spend some time in describing the background and character of both the subject of study and the adopted methodological approach. In more advanced courses a certain level of proficiency is expected, in terms of both scholarly and game-related expertise, which should be reflected in the style of writing in those cases. Being brief and informative is a skill in itself. Often it is useful to provide references to sources that allow readers to gain more background knowledge than is appropriate to fit into the paper. The motivation for study and clarification why a certain approach was adopted to study this phenomenon is nevertheless something that should be presented to the reader early in the paper.

Some dedicated thought is required to construct a logical outline for the paper. There are numerous different modes of arrangement that might suit the purpose, ranging from arrangement that focuses on description of phenomenon, or some process and its course of events, to narrative or story-like arrangements, which also are an option. The logic of the paper can also rely on division and grouping of your findings into distinctive categories, as well as on utilizing comparisons and contrasts to highlight the key differences and similarities among research findings. The logic of cause and effect is one of the classic modes for arrangement, which progresses by giving an explanation to phenomenon through a process of discovery of its underlying reasons or mechanisms. A riddle and solution structure is also a way to capture the attention of readers; a curious phenomenon or challenging problem is presented

in the beginning, and the paper explores one or more hypotheses as solutions, giving evidence and comparing their respective merits and weaknesses. Factual clarity is nevertheless the dominant tone of academic papers, rather than the thrills or poetic allusions familiar from drama or detective stories.

While there is no single structure or stylistic convention that would cover game studies, it is useful to be aware of the standard scientific article structure that dominates publishing in many disciplines. This involves presenting the argument within an 'IMRaD' template, which has four main parts: introduction, methods, results, and discussion. This kind of paper format typically also includes title, author information, abstract and keyword list in the beginning, and a list of references at the end. While using such structures, it is important to put enough weight to the analysis and results as the key part of paper; all the other sections are traditionally brief when compared with the part where the real 'beef' is presented. Beware particularly the part containing the introduction and background from taking up too much room in the paper, as the attention of reader needs to be focused on the key results and claims made in this particular research. Within the macrostructure of main parts, there is a microstructure, with each part consisting of series of paragraphs, each carrying one thought, logically linked with each other. Thus, the main argument of the entire paper is sustained by a logical line of thought carried coherently through it.

There are many good guides for scientific writing, but few issues are particularly pertinent in this context. One of the most important is the use of references. All scholars need to ground their claims either to data that they have themselves gathered and documented or through references into other scientific work. Making claims that carry no reference pointers makes a vague impression and can even be a sign of plagiarism, when text and information is provided without clearly marking it as a paraphrase or quotation that is followed by reference. Since much current discussion and thinking around games takes place among both academics and non-academics in various forums of the Internet, special attention needs to be given to the use of electronic sources. The quality of sources and how they are used is one of the key elements in determining the quality and substance of scholarly work. The core argumentation in academic papers should not rely on Internet sources that are not qualified through academic editing and peer reviewing processes. At the same time, there is much value and substantial expertise invested in various individual and communal online projects, and modern scholarship should not close its eye on this work. However, critical evaluation of sources is something that is needed also for printed publications as much as while using online sources. As a general recommendation, when multiple sources are carefully compared, it becomes easier to point out inconsistencies and conflicts within information obtained from different resources.

Finally, game studies is discussion of games and players, informed by research and scholarship. Recognizing the cultural value and significance of games should be visible in the way games are discussed and treated by students and

scholars alike. The existing guidelines for academic writing and referencing rarely take into account all the needs of games-focused research. In addition to a list of bibliographic references, many researchers are including a ludography, or detailed list of games into their reference section. An entry in such list needs to include at least the name of the game, year of publication and usually the studio responsible for its design. However, research projects discuss games production-related issues with a varying level of detail, and in some cases even minor differences between the various released versions of a game are significant. Thus, a more thorough ludography might include also publisher, names of such key individuals as the main designer, programmer, writer or artist, as well as version information including the platform such as PlayStation 2 or Xbox. In the end, in this as generally in formal details, it is most important to be consistent, whatever the adopted reference practice is.

This book has aimed to provide an introductory perspective into the main dimensions of digital games and play, providing a multidimensional view of games' meanings and roles in culture. There are many issues that concern studying games and writing research that cannot be discussed within the scope of this work, but hopefully in these chapters, as well as the recommendations in further online resources, game studies bibliography and other materials at the companion website (www.gamestudiesbook.net) are helpful for getting into the road of learning and appreciation of games and the associated rich game cultures. Good luck – play well!

REFERENCES

All online sources accessed in July 2006.

- Aarseth, Espen (1997) *Cybertext: Perspectives on Ergodic Literature*. Baltimore and London: Johns Hopkins.
- Aarseth, Espen (2003) 'Playing Research: Methodological Approaches to Game Analysis'. *Proceedings of DAC 2003*. Melbourne: RMIT University. Online: <http://hypertext.rmit.edu.au/dac/papers/Aarseth.pdf>
- Aarseth, Espen (2004) 'Genre Trouble: Narrativism and the Art of Simulation'. In: Noah Wardrip-Fruin and Pat Harrigan (eds), *First Person: New Media as Story, Performance, and Game*. Cambridge (MA): The MIT Press, pp. 45–55.
- Alasuutari, Pertti (1995) *Researching Culture: Qualitative Method and Cultural Studies*. London: Sage Publications.
- Aliaga-Buchenau, Ana-Isabel (2003) *The 'Dangerous' Potential of Reading: Readers and the Negotiation of Power in Nineteenth-Century Narratives*. New York: Routledge.
- Altman, Rick (1999) *Film/Genre*. London: British Film Institute.
- Arnold, Matthew (1869/1909) *Culture and Anarchy: An Essay in Political and Social Criticism*. London: Nelson.
- Avedon, Elliott M. and Brian Sutton-Smith (1971) *The Study of Games*. New York and London: John Wiley and Sons.
- Azuma, Ronald (1997) 'A Survey of Augmented Reality'. *Presence: Teleoperators and Virtual Environments*, 6(4): 355–85.
- Baer, Ralph (1996) 'PONG: Who Did It First?' In: David Winter (ed), 'Pong Story' 1996–2006. Online: www.pong-story.com/inventor.htm
- Baer, Ralph H. (2005) *Videogames: In the Beginning*. Springfield (NJ): Rolenta Press.
- Bakhtin, Mikhail (1965/1984) *Rabelais and His World*. Trans. Helene Iswolsky. Bloomington: Indiana University Press.
- Barker, Martin and Julian Petley (eds) (2001) *III Effects: The Media Violence Debate* (2nd edn). London and New York: Routledge.
- Barthes, Roland (1972) *Mythologies*. New York: Paladin.
- Bartle, Richard (1996) 'Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs'. *The Journal of Virtual Environments*, 1(1). Online: <http://www.brandeis.edu/pubs/jove/HTML/v1/bartle.html>
- Bartle, Richard (2004) 'Pitfalls of Virtual Property'. *The Themis Group*. Online: <http://www.themis-group.com/uploads/Pitfalls%20of%20Virtual%20Property.pdf>
- Bates, Daniel G. and Elliot M. Fratkin (2002) *Cultural Anthropology* (3rd edn). Boston (MA): Allyn and Bacon.
- Baudrillard, Jean (1988/1994) *Simulacra and Simulation*. Ann Arbor: University of Michigan Press.
- Baym, Nancy K. (1995) 'The Emergence of Community in Computer-Mediated Communication'. In: Steven G. Jones (ed), *Cybersociety*. Newbury (CA): Sage Publications, pp. 138–63.