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THE DEVELOPMENT OF EXPERTISE WITHIN A COMMUNITY OF PRACTICE OF SCRABBLE PLAYERS

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Abstract

This research examines the ways that highly ranked, competitive Scrabble players develop their skills and expertise. It focuses on the role of social interactions in the development of their expertise as members of the community of practice of Scrabble players. Using nine case studies and semi-structured interviews as a primary source of data, the research seeks to explore the range of interactions of the experts with other Scrabble players and the curriculum of knowledge that facilitated their journey from novice to expert. The professional interactions among peers in reference to tournaments, the bonds and friendships that have developed in the social sphere that accompanies club and tournament play, and specific relationships within the community such as rivalries, alliances and mentor/protégé relationships have been identified. In addition, the development and maintenance of cognitive and metacognitive skills of the experts, both inside and outside of the community, are explored.

Introduction

The community of competitive Scrabble players, at one stage almost unknown to outsiders, experienced some minor fame through its depiction in documentaries such as *Scrabylon* and *Word Wars*, and in the best-selling *Word Freak* book. These popular works depicted a series of highly driven people engaged in a competitive struggle to succeed at the highest level of the game. A look at the community as a whole, however, reveals a group of people that engage with each other collaboratively as well as competitively. Through these interactions, relationships between competitors form and from these relationships new ways of sharing knowledge about the game develop. As the game has become more popular, and played at a higher level by more people, a discrete and sophisticated curriculum has been formed, and it is taught both through practice and communication with other players. Experts not only serve as models for novices, they also assist aspiring players with achieving their goals. Allegiances and rivalries develop among the players at all skill levels, creating a stimulating atmosphere for the development of expertise.

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Communities of Practice

Communities of practice are networks of people that facilitate the dissemination of knowledge within a meaningful social context and provide the situation and tools that promote effective learning (Lave & Wenger, 1991). Participants in such a community, united in their interest or special skills, range in ability and experience, from novices and learners to old-hands and experts.

Participation entails meaningful activity related to the domain (legitimate peripheral practice) that is steeped in real practice; it is not of a lower status than expert practice, though it may be developing or less skilful in the case of novices and newcomers.

The groups of Scrabble players are both professional and social, with interactions being both focused on the domain of common interest and the social relationships. Rogoff (1991) describes the social interactions inherent in groups of learners as being conducive to guided participation, cognitive apprenticeships and access and exposure to a greater number of ideas and concepts.

Hung et al (2005) describe scaffolding and assistance for novices by more capable peers to encourage greater and more skilled participation as a key process within communities. In this process, experts are exemplars for their craft and examples of what may be possible to the newcomer (Wenger, 1998). Further, novices provide renewal within the community to replace experts who cease practising a skill.

In terms of knowledge and, specifically, learning, Lave and Wenger's (1991) claims are twofold. First, they claim that the best environment for learning is one similar to the environment in which the skills are to be used (authentic environments). Second, their research went some way towards an overview of the curriculum of these communities, and identified some of the mechanisms by which the information is distributed. Five case studies were used to come up with commonalities between environments and social interactions that were conducive to good learning results.

Lave and Wenger identified characteristics of communities that led to meaningful learning, and described the absence of these as causing reduced learning outcomes. Wenger (1998) summarises the theory succinctly: that learning is part of a larger process having individuals interacting and interrelating actively in a social community with its attendant practices, beliefs, language and artefacts. Learning takes place as a participant joins the community and begins interacting with other participants, being immersed in its practice, and absorbing the shared knowledge of the community.

Expertise in Gaming

Unlike other games such as Chess or Go, Scrabble has not been extensively researched. The few authors who studied Scrabble looked at the nature of a cognitive make-up which constitutes expertise in this game. Borzycki (2001), for example, found that experts developed faculties and strategies to perform at high levels in Scrabble games or similar activities, which

offset cognitive decline in age. Cansino et al (1998) identified the main cognitive tasks in Scrabble as pattern-matching and checking validity of possibilities against long-term memory, and examined the difference in performance in anagramming with stimuli of different lengths. Experts were noted to use pattern-matching techniques to counteract the exponential increase in difficulty – showing only linear increases in time to solve problems.

The development of expertise in games of most kinds was previously seen in psychology as a solitary journey, contingent upon developing better quality and quantity of analysis in game positions (Holding, 1985) or practice (Charness, 1988), rather than an essentially social process. Classification of expertise has been linked largely to ability as displayed in practice (Relling, 1904), rather than by behaviour or relationships.

More recent research into chess has come to a conclusion that there is a need to take into account other possibilities for the origins of expertise. Ross (2006) believes that the evidence suggests expertise is not inborn. He refers to Herbert A. Simon's theory that ten years was considered the amount of time it took to become proficient to expert level at most disciplines, but that prodigies in many disciplines routinely outpace their predecessors of decades gone by and that "professionalism has been emerging at ever younger ages" (Ross, 2006, p. 52). This was put down to better support, such as from families, and a greater amount of knowledge available to be absorbed more quickly (eg books, Internet resources). This suggests that the quality of interactions of mentors or teachers and available materials have an effect on advancement and development that may be greater than inborn talent.

Scrabble is a much younger game than chess, and the detailed study and investigation of chess as a game was well advanced before Scrabble was even invented. It has been studied by a smaller number of enthusiasts in journals of recreational linguistics, and also ones that focused entirely on Scrabble. Advances in technology, changes in dictionary (compared to the static rules of chess) have meant the body of knowledge within Scrabble has mutated a great deal over the last few decades. In addition, as new experts have been coming through with their own ideas and theories, they influence the ways that new players and aspiring experts participate. However, there has not been a study of the influence of social interactions on the development of Scrabble players' expertise.

Scrabble, then, presents a fascinating community of practice in which to study the development of expertise as a socially mediated process. We were interested to determine how experts reflect on their own development, particularly their perceptions of how much of their journey was a solitary combination of ability and practice, compared to how much they gained from the social interactions within the community of practice of tournament Scrabble players.

The Research Approach

Using the method of case studies the research seeks to explore the range of interactions of the experts with other Scrabble players and the curriculum of knowledge that facilitated their journey from novice to expert. The data were collected using semi-structured interviews designed to explore how players achieved expertise and what social interactions might have influenced their learning. These interviews were analysed by coding into categories based on themes of what learning took place, how it occurred, what sort of social relationships were formed, and what

activities took place within them. Coupled with a database of players' results over time, a narrative of their progress, encompassing their study, social interactions and achievements was constructed.

Case Studies

This paper presents the data of three representative participants; it follows the development of expertise of each participant, as well as reflects upon the development of the Scrabble community over time. Being mostly based on the interviews of the players, the data represents their personal reflections and perceptions of the events. The data are presented in chronological order.

Jane*

Jane began playing at the age of 10 with a neighbour she was friendly with. She enjoyed playing the game against her opponent, and was aware of "being the equal of this person who had to have been about 10, 12 years older than [her]" (Interview, 27.7.2006). While playing, Jane developed her anagramming skills until she was aware of having a talent for this, but she was not aware of being a better-than-average Scrabble player because there was "no yardstick, nothing to compare with" (Interview, 27.7.2006). She continued to play the game intermittently for most of her early life.

A competition in the National Review in the 1970s in which participants looked at a board diagram and sent by post the best possible move they could find formed the basis of the country's first Scrabble tournament. An elimination process filtered the entries down to eight finalists, of which Jane was one. To prepare herself for the finals, the initial task she had to complete was to map her experience onto a different set of allowable words, by identifying which ones she felt were the most important.

> [T]hey used the Heinemann dictionary, which was new at that time, it was part of the promotion for the Heinemann dictionary, and that was the time that I first went through the dictionary and looked, made a list of two letter words. I realised that that was important, and so I did that and, that's when I started using dictionary to learn words. (Interview, 27.7.2006)

According to Jane, her initial learning was purely self-directed and unaided because there were no study guides or word lists available and no more knowledgeable peers from which to learn. She described herself as having always been near the top and in the early years having grown in skill at a commensurate rate along with her peers and competitors.

> When Scrabble started here, it was started after that Hobart tournament by just a few of us and no-one was ever hugely better than I was, I was always right from the beginning one of the top people. Looking back now we certainly had much less skill than one does now, but I developed along with the development of

> organised Scrabble in Australia, so I was always good at it from the start. (Interview, 27.7.2006)

Even though modern tournament Scrabble is a game in which the competitor plays individually, the first tournament Jane competed in was played in randomly-generated pairs. From the start, Jane took on something of a leadership role, organising her partner's learning, deciding on the words to be learned and how the lists would be created and studied, and from this, mutual co-operation in learning stemmed, as both players were working toward a common goal. A unified, collaborative community was some way off, but Jane facilitated her partner's learning, which would not have otherwise happened.

> At that point in time you basically had to go through it yourself. Nowadays its much easier for someone who wants to become very good because a lot of the hard work has been done by programmers, list-makers and publishers. (Interview, 27.7.2006)

Jane's effort was rewarded, as she and her partner were able to win the tournament through superior word knowledge. There was less skill in the game during the tournament scene's infancy, and the dictionary was very much the complete curriculum. Identifying, isolating and learning the most crucial components, based on her experience playing the game for many years, allowed Jane to do this more successfully, and when tournaments became more regular, she was always one of the top players in New South Wales because of her command of the dictionary, even as a relative novice.

Jane experienced a large amount of success throughout her playing career, including being both New South Wales and Australian Champion, but believes that she has slipped in ability and been overtaken by other players, including those that she had mentored. As an expert, she is able to describe her perceived failings in a detailed way:

> I forget words… sometimes my defensive play isn't as good as it should be, sometimes my endgame isn't as good as it should be, and I think that when I was more on the ball I would have been able to do those things a little better. (Interview, 27.7.2006)

She describes her mentoring and training of new players through a process she calls "diagnostics", trying to give new players an experience of the tactical considerations she makes when analysing a game position, and is able to identify both skilled and potentially skilled players by watching them. Of one of her club mates, she says:

> He was a person who had only been playing over the net and had really become keen very quickly and was very interested in strategic issues as well as in increasing his word knowledge. And he just lapped everything up, it was really interesting to see how he appreciated points that were raised. (Interview, 27.7.2006)

Jane believes that it is essential for the community to have players coming up, challenging the experts and supplanting them, and for new generations to become involved to ensure greater competition and so that the knowledge within the community is passed down.

Alan*

Alan began playing the game competitively in the early 80s, by which time there was a small, but thriving Scrabble club scene which meant players were able to meet once a week for social and practice games. This development meant the presence of more accomplished players from whom novices could learn. There were enough players at tournaments that it was necessary to divide players into sections based on ability, and getting into the top section was Alan's initial aim. He knew quickly, like Jane, that he had to learn the two letter words, but progress was not as quick as he desired.

> I was in the Intermediate section in tournaments and I didn't see any way I could get into Masters. They were just so much better and after a few years, I found the way, and the way was I followed what Dennis Boon was doing. Dennis was one of the leading players at the time. He used to make lists of six letter combinations to make sevens. (Interview, 24.9.2006)

Alan took upon Dennis's study technique, and began to create lists of words of his own, using the strategy he had observed in an expert player. During lunch breaks and whenever a dictionary was handy, Alan would study words. He also watched the games of experts during club sessions to get an idea of playing strategy and style.

> Dennis was probably a bad influence on me because he used to fish like crazy. There was a big contrast between Dennis and Roger Blom. Roger Blom would just, because he knew the whole dictionary pretty well, he would actually play according to what was on his rack. He'd find the best scoring word on his rack and play it. (Interview, 24.9.2006)

"Fish", in Scrabble parlance, means to play off one or two tiles for a small score in the hope of drawing a high-scoring play such as a seven-letter word. Though he had learned from Dennis's methodical study technique and gained a large number of new words, he was still not achieving at a level he felt was high enough for his knowledge. During the 1985 Victorian Championships, he made a decision to change his style of play and abandon the "fishing" technique he had absorbed through observing Dennis. This led to success, as he won his next tournament and got into Masters, where he has remained ever since.

> The decision to stop fishing for seven letter words and stuff, and score consistently when I could was the turning point. Although having the words in the background was very useful. (Interview 24.9.2006)

Alan monitored his own progress by watching his game scores increase, and counting the number of seven letter words he played in each game. Alan became one of the country's top players, and a key figure in organising the game, running the Dandenong club for 15 years and spending several terms as National Ratings Officer, responsible for processing results so that national rankings could be produced. From here, he became more involved in what he describes as the politics of organisation, which took up the time he had previously used for study and improvement. Alan notes that disputes with other players about decisions made were negative

experiences that made him less inclined to interact with other players and spend time on the game. Today, his rating puts him outside the top ten in the country, but he spent many years there.

Reflecting on the way the game has changed since he became an expert, Alan notes the presence of "a generation playing at a higher level I don't think I really want to. I don't think I want to be quite as concentrated and focused as that" (Interview, 24.9.2006). He still competes actively and often, but concedes that many of his previous goals, such as playing World Championships and winning major titles are now unrealisable.

> There are times when I could have expected that. I don't really expect that now. I don't think I'm motivated enough to really put the time in which I'd have to do to get there. (Interview, 24.9.2006)

Charles

When Charles became interested in the game in the 1990s, the Scrabble scene had flourished to such an extent that there were many clubs throughout Sydney, many of which played to very high standards. Publications such as, newsletters and journals, as well as discussion on Internet forums and websites, made reading about high-level strategy and getting advice on study techniques a quick process. Not only was there a lot more information, accessing it was easy, as study lists could be created and personalised using computers, and specific study guides were available for purchase. Playing over the Internet was now viable due to many other players doing this, so quality opposition was available regardless of location.

Against this backdrop, Charles had been an avid reader of a number of Scrabble publications which featured writing about skilful play, and understood much, if not all, of the concepts and language used by expert players when describing their practice. He was able to identify the differences between experts and non-experts even from his first competitive experience.

> It's very, very obvious when you're sitting down to play an expert rather than a non-expert. And I think an air of professionalism in playing the game is something that almost all experts share. They're less inclined to talk about things other than the game, during the game. They're less inclined to play a word out and retract it or shuffle letters around on the board or commit scoring errors. They take it to heart more when an error is pointed out in a tournament game or they find they've made one. (Interview, 19.10.2006)

Although he had amassed an excellent vocabulary and understanding of tactics, it was not until he became a regular competitor that he was able to successfully apply his knowledge to game situations. Jane served as an early mentor, as Charles attended the same club as her, and sought to observe her games whenever possible. He had identified Jane as having knowledge he wanted to possess, as his first few tournaments, though successful, were not as successful as he had anticipated. With more experience and practice, his ranking increased rapidly throughout 1999 and 2000, and he was New South Wales' most improved player for those two years.

> I think the reason I was able to improve so fast so early was not actually because I was learning that much, it was because I was learning how to apply the skills I

> was aware of from being aware of the scene through reading about it. (Interview, 19.10.2006)

Tournaments and clubs, then, became a way of Charles learning how to put his theory into practice. The social interactions that developed around the tournament scene provided encouragement for Charles. Due to his young age and ability, he was introduced to the top experts almost immediately and began to interact with them, discussing, observing and seeking to emulate their achievements. He describes the interactions and lively company of similarly-minded experts as being one of the most attractive things about tournaments. A lack of experts in a field, or an area, would be disincentive to play. For Charles, "the greatest pleasure is always playing someone who's good enough to beat you" (Interview, 19.10.2006). Knowledge of these other players, and their skills, is important, as the field of opponents becomes part of the field of knowledge involved in playing as an expert.

> For me, if I'm playing a big tournament and want to win it, of course I want to know any advantage that could accrue to me through knowing my opponent's foibles. Of course I value that because I'm competitive and the possibility of winning means enough to me that I'd be willing to take advantage of those things and learn about them, go out of my way to learn about them if possible. (Interview, 19.10.2006)

From the beginning, though without seeking to emulate any particular player, Charles adopted many expert strategies and learning techniques even though he was a novice. He reflected on his performance by analysing games, sought to identify weaknesses in his style of play, and observed experts wherever possible to see some of what he knew in theory applied in practice. Today, as well as continuing to read the theoretical aspects of the game, he keenly takes part in strategic discussions, at tournaments, during online play and on mailing lists.

Discussion

There are a number of similarities between the three case studies presented. Each individual is highly focused and skilled, and all were able to vividly describe the process by which they advanced their ability at Scrabble. In each case, a significant investment of time studying was necessary, but it was only through practice that the full effects of the new knowledge were able to come to fruition. Alan's conscious decision to change his style of play when he had worked out his current one was not working, Charles's analysis of games, and Jane's co-operation and collaboration with playing partners are all examples of this.

Each subject also showed, from early on, the ability to identify strategies required to improve their ability, and seek out the information to do this, be it from other players or published information.

The idea of learning from other players is one that is common. Jane progressed alongside the development of the game in competition, Alan used the knowledge of peers to aid his rise to the top, and Charles had an exceptionally quick ascent due to the assistance of peers through their

practice and their contributions to the curriculum that underpins expert Scrabble – words and strategy.

All three players expressed an interest in improving the game, both by increasing knowledge through interactions, and assisting others by helping with the organisational and sometimes political aspects of the community. These interactions are a two-way process – they influence and are influenced by the community as a whole. Their contributions have all had an effect of change of growth on the community, Jane through her mentoring and teaching at a club, Alan through his work with establishing and maintaining ratings, and Charles through his interaction with the theoretical side of the game, both reading and writing.

What differentiates the three subjects is the range of opportunity that was available to each when they began play. As the community and its attendant knowledge have become larger and more complex, there are more opportunities to learn, and learn quickly. Table 1 shows the difference in interactions available when the three subjects were starting to play.

Table 1. Learning within the community as a novice

	Jane	***Alan***	***Charles***
Locations of interactions	Tournaments only	Club play and tournaments	Club play, tournaments, online play, email lists
Frequency of interaction	Every 2-3 months	Weekly	Any time desired
Types of interaction	Competing at face to face events	Competition, observation of more capable peers, learning study techniques	As for Alan, plus: immediate access to experts and players interested in his development, email lists to ask questions and seek advice, reading literature on game-playing theory, social interactions around tournaments

Jane never had anyone significantly better than her to learn from, whereas Alan and Charles were able to interact often with more capable peers, allowing them to try to play at an expert level almost from the beginning. Wenger (1998) describes experts as “living testimonies to what is possible, expected, desirable”, in addition to them being sources of information in their own right. Increased access to this information seems to lead to increased rates of development. Charles not only had the most opportunities, he also has the easiest access to them, and is the most active participant in the community. Today, he is the highest rated and most knowledgeable of the three, despite having started 25 years later than Jane, and 15 years later than Alan. He was the most pro-active in seeking to discuss the game at a high level with experts even before he became one, whereas Alan largely had to work out the strategies for himself.

All three made mention of newer players achieving more and more quickly, than those that had come before them due to the larger array of knowledge. Respect and admiration for experts, at all stages of the player’s development, was also strongly evident when the community of other

players is described by Jane, Alan and Charles, and despite the competition between these players for rating points that decide ranking and entry into high-level tournaments, the interactions of play are always described positively, though Alan had bad experiences with the leadership decision-making side of his involvement.

It seems that the creation of new experts leads, in turn, to creation of further experts in two ways: first, more experts means that new players have more chances to interact with and play against experts, thus giving more chances to see the craft and skill; and secondly, each new expert adds to the body of knowledge through the way they talk, write or otherwise communicate knowledge about the game, which is sometimes formal, though most of the time is adjacent to the practice at club and tournament games. Practice in the community, then, is a way of bringing people together to pit their knowledge against each other, and through observation and discussion of this, knowledge is disseminated widely.

In the Scrabble community, this happens in a number of ways – very good plays or unusual words are discussed afterwards, close contests are observed intently by onlookers and quizzes and puzzles are given out by players after the games are over, sometimes at the tournament, sometimes over dinner or drinks afterwards. The intensity of the competition is complemented by the light-hearted, informal settings of the interactions which surround them.

Conclusion

Individuals who are sufficiently driven are capable of performing at a high level in competitive Scrabble, but the time that it takes to reach this is becoming shorter and shorter. Not only has more been written about the game now compared to 30 years ago when competition was just beginning, it is more available due to a larger, better-organised group of participants with superior facilities for disseminating the information, such as the Internet. These have allowed novices more rapid access to experts who can coach and mentor them, and to information on higher-level skills associated with the game through what has already been done, discussed and written about. Information that outside of a community might be painstakingly studied and only occasionally practiced is disseminated rapidly through regular practice and learning from more experienced peers.

It is strongly indicated that both competition and collaboration, in tandem, create an environment conducive to the development of expertise. It also demonstrates that the path to expertise is not a lone journey but is facilitated and accelerated by the interactions within a community of practice.

References

Borzycki, M. (2001). *Ageing, cognition and wordplay: An examination of the potential benefits of verbal expertise in later adulthood*. Unpublished doctoral thesis, University of New South Wales.

Cansino, S., Ruiz, A. & López-Alonso, V. (1998). What does the brain do while playing Scrabble?: ERPs associated with a short–long-term memory task. *International Journal of Psychophysiology, 31*(3), 261-274.

Charness, N. (1988). Expertise in chess, music, and physics: A cognitive perspective. In L. K. Obler & D. Fein (Eds), *The exceptional brain: Neuropsychology of talent and special abilities* (pp. 399-426). New York: Guilford Press.

Holding, D. H. (1985*). The psychology of chess skill*. Hillsdale, NJ: Erlbaum.
Hung, D., Tan, S. C., Hedberg, J., & Koh, T.S. (2005). A Framework for Fostering a Community of Practice: Scaffolding Learners through an Evolving Continuum. *British Journal of Educational Technology, 36*(2), 159-176.

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

Rogoff, B. (1991). Social interaction as apprenticeship in thinking: Guidance and participation in spatial planning. In L. B. Resnick, J. M. Levine, & S. D. Teasley (Eds.), *Perspectives on socially shared cognition*. Washington, DC: American Psychological Association.

Ross, P.E. (2006). *The Expert Mind*. Scientific American, 295(2), 46-53.

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

* Pseudonyms are used for all the participants in this research