BRINGING IT TO THE TEACHERS: BUILDING A PROFESSIONAL NETWORK AMONG TEACHERS IN ISOLATED SCHOOLS

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ABSTRACT

Teachers in isolated schools are often under-resourced and overwhelmed with additional pressures. Teaching in an isolated community can sometimes challenge teachers' skills and knowledge, particularly when additional pressures such as behavioural issues associated with students with Oppositional Defiant Disorder (ODD) like behaviours are present. Teachers in isolated schools catering for students exhibiting elements of ODD need additional support and resources, but distance and isolation are barriers to the provision and receipt of these services. Professional support networks are often relied on by these teachers, but these support communities can be hard to build because of the physical distances occurring in rural NSW. Thus, teachers in isolated schools are often faced with dealing with stress and student behaviours on their own, with very little support, which might leave them feeling disconnected. One method of connecting isolated teachers is through an online Community of Practice (CoP).

Websites which can enable the development of a CoP have been proposed as a way of solving this problem. This study was developed to examine the building of an online support structure named 'Bringing It To The Teachers' to provide for an emergent online professional network for teachers in isolated rural NSW schools. The study involved ten teachers from five isolated schools catering for students who had been identified as displaying oppositional and defiant behaviours. This paper presents the preliminary findings of the study, investigating the elements required for successful development of an online CoP for teachers in isolated rural communities.

INTRODUCTION

Teachers in isolated schools in NSW, also known as Country Area Program (CAP) schools, report being unprepared and burdened with student behavioural issues, which are often perceived as more challenging than those experienced in urban schools (McLean & Dixon, 2010). These teachers' effectiveness is challenged even further if those issues are associated with students who display behaviours characteristic of Oppositional Defiant Disorder (ODD) (McLean & Dixon, 2010). ODD is a behavioural disorder diagnosed using prerequisites in the Diagnostic and Statistical Manual of Mental Disorder (DSM-IV) (American Psychiatric Association, 1994), and is generally diagnosed by psychologists or psychiatrists in urban areas. However, because of factors related to isolation, CAP school counsellors are able to give students a 'mental health' diagnosis, which attracts the same funding as an ODD diagnosis would in urban areas. Moreover, whilst in some schools there are no students with a formal diagnosis, the behavioural problems associated with ODD like behaviours still exist.

Teachers in CAP schools need additional support and resources, but distance and isolation are barriers to the provision and receipt of these services, placing these teachers at a significant disadvantage (Lyons, Cooksey, Panizzon, Parnell, & Pegg, 2006). Like their urban counterparts, these teachers rely on professional support networks. However, due to the physical distances occurring in rural NSW, these support communities are difficult to build and maintain (McLean & Dixon, 2010). Thus, teachers in isolated schools are often forced to deal with student behaviours, and the resultant stress, on their own with very little support.

An innovative online network called Bringing It To The Teachers (BITTT) was instituted by the

researcher to address the isolation and lack of professional support of teachers in isolated rural NSW schools. The study examined the building of such a network involving ten teachers from five isolated schools who were teaching students identified as displaying oppositional and defiant behaviours. The conceptual framework of Community of Practice (Wenger, 1999) was adopted to inform the development of the online professional network.

A Community of Practice (CoP) is a group of like-minded people sharing common concerns, problems, passion or experiences (Wenger, McDermott, & Snyder, 2002). A feature of a CoP is that members have the opportunity to learn socially from each other, through a mutual discourse, which enhances social interactions. These social interactions can be important as they, in turn, enhance social relationships and mitigate the isolation felt by teachers in isolated schools. Further a CoP can play an important role in the building of professional knowledge by community members engaging in *reciprocal interactions*, which in turn promotes *professional connectedness* (Reading, 2010, pp. 3-4). Teachers in isolated communities who are unable to meet face to face may benefit from the sense of professional connectedness offered by a dedicated virtual CoP (Reading, 2010). Further, participants in the CoP are able to have professional discussions without judgment and therefore gain additional emotional support from the community. However, CoPs *are not born in their final state* (Wenger, McDermott, & Snyder, 2002, p. 68) rather they have to undergo several stages of transformation to become mature. This paper presents the results of the early stages of the development of the BITTT network and identifies the elements required for its successful start.

Research Design

The research project utilized a design-based approach as an overarching research framework that guided the researcher in analysing the problem and developing solutions to the issues identified by teachers in isolated schools with having access to professional support (Barab & Squire, 2004; Cobb, Confrey, diSessa, Lehrer & Schauble, 2003). Design-based research was chosen as appropriate to the main purpose of the study – to design an online network, which could supports the teachers in CAP schools who work with children displaying oppositional and defiant behaviours.

The four phase research design used for the study included identifying and analysing the problem, developing an informed practical solution, the development of iterative cycles of improvement and reflection. Based on a process described by Creswell and Plano Clark (2007) the local impact of this solution was evaluated through a series of iterative cycles of testing and refinement before the broader impact of the intervention was evaluated. The authors' previous research (McLean & Dixon, 2010) provided initial understanding of the needs of teachers in isolated schools catering for the needs of students with oppositional behaviours. Phase one of the research involved consultation with a behaviour expert, a focus group on best practice strategies, and interviews with the participant teachers, which allowed for refining the understanding of the needs of teachers in isolated schools and for developing initial design principles for the development of the BITTT site. Phase two was the development and testing of the BITTT site. Phase three involved the cycles of evaluation and improvement that occurred during the research period. Phase four will involve a reflection on, and the development of the revised design principles for the BITTT online community of practice, with phases one to three have been completed and phase four is currently in progress.

Theoretical Framework

The theoretical framework of this study is based on the concept of Vygotskian social constructivist theory and Neo-Vygotskian activity theory. Social constructivist theory suggests that people construct knowledge based on prior experiences and social negotiation (Daniels, 2008). Knowledge and learning is gained through social interactions and these social interactions within a 'community' are used for the *continuity and development of knowledge* (Daniels, Cole, & Wertsch, 2007, p. 82). In this study the 'community' refers to the community of practice, as depicted in Figure 1. It was this Community of Practice (CoP) that the BITTT site was seeking to develop to support teachers and their ongoing professional development in isolated schools. Activity theory examines the relationship between the subjects, objects, tools and community (Engeström, 1998). Further Activity Theory explains the correlation between these aspects and normative societal rules (Engeström, 1998). In this study the interactions examined will be between the teachers (subjects), the website (tool), the

professional development (object), a code of conduct (rules), the experts and participant teachers (division of labour) and the community of practice (community). The figure below (Figure 1) gives a pictorial representation of the interactions as seen in the BITTT project.

Figure 1: *Activity Theory as it applies to BITTT (adapted from Engeström, 1998).*
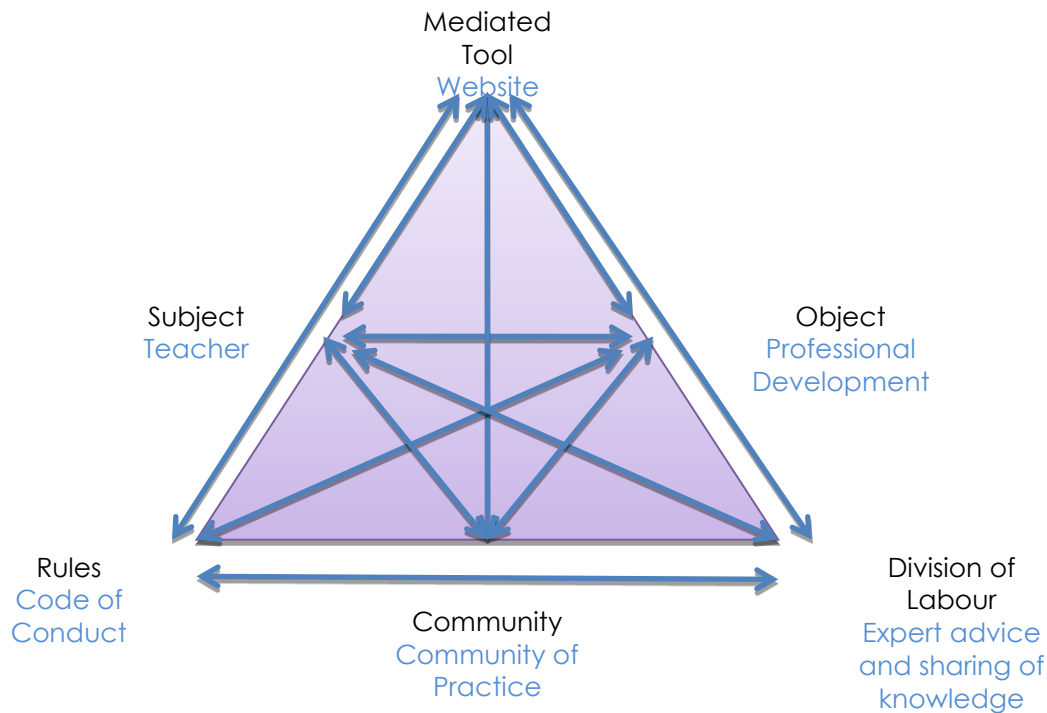
Each element interacts and is dependent on tensions from the other elements to maintain its structure: for example, the community of practice will only develop if there are teachers participating in the website who are interested in improving knowledge through gaining advice and sharing knowledge.

Participants

Schools

This study involves five isolated CAP schools in NSW. The NSW Country Areas Program (CAP) is an equity program run by the NSW Department of Education and Communities. Its target outcomes include reducing the impact of geographical isolation on NSW schools. To qualify for the Country Areas Program schools must be more than 90 kms from a centre with a population over 10,000 and meet an isolation index criteria (NSW DET, 2009). The schools and participants are outlined in a Table 1, the size of the schools varied from 146 students to 316 students, with all schools categorized as isolated. The distances between the schools in this study varied, with the greatest distance between schools being 475 kms: for example, if all teachers had come together at the nearest regional centre, where professional development generally occurs, the return distance travelled by the teacher participants would be between 322 and 740 kms. Isolation impacts in other ways: additional costs for travel and replacement staff, additional time that the teachers are out of the school, interruption of learning programs for teachers and a disruption to the routine for classes.

Teachers

The participant schools were identified by the regional District Guidance Officer, as schools catering for students with oppositional and defiant behaviours. A presentation was then made at each of the schools to recruit participants. The ten teacher participants had an average of nearly eight years of

experience with four inexperienced teachers (under three years) and two very experienced teachers (over 14 years). There were three male teachers and seven females. Table 1 outlines the participant and school profiles.

Table 1: *Participant and school profile*

School	Size *	Participant	Gender	Experience (in years)
A	211	1	F	14
B	146	2	F	1.5
C	316	3	F	3
		4	F	5
		5	M	4.5
		6	F	30
D	158	7	M	2.5
		8	F	1.5
		9	M	8
E	210	10	F	7

* Information from My School website (ACARA)

Description of the Online BITTT Model

The Bringing It To The Teachers (BITTT) professional network was developed in 'Edmodo', an education specific social networking site for use by teachers and students. This site contains folders with resources, strategies and information about ODD, IBPs, as well as a 'Facebook' style chat feed that allows participants to post comments and resources, store a library of resources, make comment on other participants' questions and commentary and ask questions of the community of participants. The BITTT site has folders of resources for public access, which include: Individual Behaviour Plans (IBPs), information about ODD, links to outside web resources and specific teaching strategies.

Methods of Data Collection

The methods of data collection in this study included a focus group and a series of semi–structured telephone and face-to-face interviews, combined with questionnaires which focused on specific site usage questions. These methods of data collection were used to inform each of the phases of DBR, where phase one utilized the focus group, phase two utilized the data from the initial phone interview, phase three utilized the iterative cycle questionnaires and phase four the final, face-to-face interviews. **S**emi-structured interviews and online questionnaires were designed to inform the iterative cycles of improvement and were conducted during each of the iterative cycles. The data collection commenced with initial interviews, which were conducted via phone at a mutually convenient time in mid-2011. The BITTT site was developed and launched in September of 2011, with the data collection period lasting nine months. Final interviews were conducted face-to-face in July 2012 at the participant schools. The online questionnaires were conducted throughout the nine month data collection period to inform the iterative cycles. These cycles were completed in July 2012.

Data Analysis

Data were analysed using thematic analysis, the data were put into a coding matrix developed from the 'Conceptually Clustered Matrix' (Miles & Huberman, 1994, p. 128) using the themes identified by the researcher as they emerged from the findings. This matrix used groupings from design research principles developed in phase one of the research including: a) provide the teachers with specific information on oppositional and defiant behaviours as they felt underprepared in this area; b) enable consultations with experienced professionals, c) support teachers' problem solving skills, d) meet

teachers' needs for belonging by providing space for peer communication, e) provide easy and simple access to the site for effective use of time and resources. The matrix allowed the researcher to make connections between the data and the design of the learning environment. Further it allowed for the relationships within the data to be uncovered and cross-comparisons made (Miles & Huberman, 1994). The preliminary analysis of the iterative cycle questionnaires identified themes, which led to improvements in the BITTT site. These themes included the need for expert help, a desire for professional discussion and a request for visual resources.

Results and Discussion

Preliminary analysis of the data revealed common themes and highlighted enablers and barriers of the CoP professional network developing within the BITTT site. The development of the CoP was very slow because of the small number of participants; however, the individual elements of the site proved to be effective. The elements of the BITTT site that the participants identified as being most valuable included: easy to use site, 'ask an expert' feature, effective teaching strategies and relevant resource links. These are expanded further below.

An initial principle identified in phase one of the research was the need for consultation with experienced professionals, this need was met by the very 'ask an expert' element, which required participants post a question or problem that was then attended to by one of a panel of experts. Below is an example of a teacher's question.

> *Having an issue at the moment – The child struggles with Maths and this is setting them off for the rest of the day ... tantrums, crying, hiding or moving around the room – it's becoming a pattern everyday ... I am giving them all of the support I am capable of in class but I am just wondering if you have any suggestions?* (Teacher 4)

The behaviour expert's reply was extensive and included strategies such as: setting up a Maths contract, designing activities that link to the student's preferred activity, using interactive Maths games online as a class reward. Teacher 4 implemented some of these strategies and had success. The 'ask an expert' feature proved to be popular, with 80 per cent of participants listing this as an essential element of the site in the final interview. The questions and replies were public for all participants to see, with participants adding tips that worked for them at times.

The need for belonging was addressed by providing space for communication in an attempt to further development the CoP. Whilst most participants (60 per cent) commented on the importance of the discussion board, they were reticent to be the first to ask for help. The participants suggested they were willing to contribute to discussions and wanted advice, but were unwilling to ask for help. Participants were happy to ask the expert, but were unwilling to ask the general population of teacher participants. They were also willing to contribute but did not want to be seen by colleagues as incapable. A typical comment was as follows:

> *I liked the discussion and am happy to participate, but I wouldn't want to initiate it … just not comfortable with it.* (Teacher 8)

Providing for an effective use of time and resources was an initial principle for the development of BITTT site and the most valuable element identified by the participants was its simplicity of use and the ease of access provided by an open site. The participants identified the BITTT site as easy to use (70 per cent), however, as it was a research site, and it was closed to the public, and teachers felt it was "just another user name and password I have to remember, I have so many already" (Teacher 2). An open site with the same resources was suggested as a possible improvement. Due to the participants isolation standard professional development was intermittent and often caused disruption to the classroom. The site allowed participants to access informal professional development in a time and cost effective manner, which the participants were satisfied with, however they identified the need for behaviour specific resources and strategies to be included on the website.

The participants (50 per cent) appreciated the time effective access that the site provided to strategies and resources and commented on the collection of expert recommended resources and strategies being a valuable asset to their teaching practice. This also applied to both initial principles that teachers feel underprepared and needed more specific information about working with children, and

that they need clear problem solving solutions and strategies, by providing them with a simple avenue to access resources and strategies.

Most participants (90 per cent) cited competing priorities as a barrier to seeking and developing a professional network. One of the most significant limitations related to the effective use of the site was the large workload placed upon teachers in isolated schools, with many spending up to four hours outside of school hours on preparation, meetings, planning, programming and mandated activities. This restricted the amount of time they had available to them for browsing the site, or learning about new skills and strategies. One participant felt if it was mandated by the boss he would do it but otherwise it was *shoved to the bottom of the pile* (Teacher 5). A typical comment was as follows.

> *So the workload that is getting pushed on you, unless it is mandated, like I get emails and I looked at them and thought 'oh yeah' it's always in my inbox, like you don't even have a folder you are still in my inbox and I'll deal with that I'll come back to it. You never ever come back to it. So how you make that something that teachers go 'this is a priority that I need to deal with'.* (Teacher 5)

Other barriers to accessing the BITTT site included lack of time, inappropriate Internet access, and the need to use a password, which made the site less approachable. Some participants (40 per cent) cited ease of access as important and preferred not to have to enter passwords; however, this was not appropriate in a research website, as this needed to be a closed website for the data collection period. Whist the password situation could be addressed in a post study BITTT site, the issue of internet access and lack of time are complex issues in the hands of the individual, school and a wider community such as relevant government organisations.

It was found that individual working styles impacted on the BITTT site usage, with some teachers (40 per cent) only referring to the site when they faced a difficult or unfamiliar situation. When an incident occurred, they consulted the site in search of answers, using a reactive style of classroom management. Conversely some other participants had a 'just browsing' approach (30 per cent), which would suggest a more proactive method of classroom management. However, both the styles need to be catered for.

Further research might need to consider moving the site to an open forum, broadening the content and the context to cater for all teachers in isolated schools and to cover a wider range of special needs. The BITTT site could be reconfigured to make the chat component less dominant and, therefore, less demanding and intimidating to the teachers. Further research is necessary to understand what could assist teachers' engagement in chats with peers, thus allowing for further development of the CoP, which currently is still in its early stage. The change of format to a more resource and effective strategy based site would cater for a broader audience than the current format, as the chat was seen as a secondary interest to the teacher participants, not the reason they wanted to visit. Live chat with an expert would also be an integral component of the future BITTT site. The future of BITTT would be dependent on funding, which would impact the accessibility.

CONCLUSION

The preliminary findings indicate that there is a need for this type of professional network in rural NSW. The principles identified in phase one were refined and strengthened with the data collected and expanded to include additional features.

The specific features of the site identified by the teachers as being most useful were the 'ask an expert', professional network and the availability of specific and relevant resources. These features were valued by participants and could be enhanced with a further roll out of the site to encompass the wider rural teaching community.

The specific features of the site that needed to be adjusted were an expansion of the 'ask an expert' to include a 'live chat' component, where teachers can ask experts questions and get immediate responses, allowing for follow up questions and clarification. The layout of the site also requires some adjustment with a greater focus on resources and perhaps a lesser focus on the chat to avoid its supremacy. This would allow teachers searching for specific resources and strategies to access information more readily. Yet the ways that the 'chat with peers' can be made more appealing and

engaging for teachers require further investigation.

The future directions of the development of the BITTT would see the site move to a more accessible forum, broadening the context from teachers of students with ODD to cater for all teachers in isolated schools. Further information on a wider range of disabilities, including links to organisations and departments would attract a greater number of participants, allowing for the CoP to further develop. The BITTT site might need to be reconfigured to make the chat component less dominant, allowing a more resource and effective strategy based site that would cater for a broader audience than the current format. Live chat with an expert would also be an integral component of the future BITTT site, which would be dependent on funding. The findings to date are promising and reveal this to be a valuable initiative.

REFERENCES

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington DC: APA.

Barab, S. & Squire, K. (2004). Design-based research: Putting a stake in the ground. *The Journal of the Learning Sciences, 13 (*1), 1–14.

Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher. 32* (1), 9–13.

Creswell, J. W. & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Daniels, H. (2008). *Vygotsky and research*. London: Routledge.

Daniels, H., Cole, M., & Wertsch, J. V. (Eds). (2007). *The Cambridge companion to Vygotsky*. Cambridge, UK: Cambridge University Press.

Engeström, Y. (1998). *Perspectives on activity theory*. New York: Cambridge University Press.

Lyons, T., Cooksey, R., Panizzon, D., Parnell, A., & Pegg, J. (2006). *Science, ICT and mathematics education in rural and regional Australia, The SiMERR National Survey.* UNE: SiMERR.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.

McLean, F. & Dixon, R. (2010). Are we doing enough? Assessing the needs of teachers in isolated schools of students with oppositional defiant disorder. *Education in Rural Australia, 20* (2), 53–62.

NSW Department of Education and Training (NSW DET) (2009). *NSW country areas program guidelines 2010-2012: Guidelines for NSW government schools.* NSW: NSW Dept of Education and Training.

Reading, C. (2010). Using ICT to increase professional connectedness for teachers in remote Australia. *Australian Educational Computing*, 25 (2), 3–6.

Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School Publishing.

Wenger, E. (1999). *Communities of practice: Learning, meaning, identity.* Cambridge, UK: Cambridge University Press.