Illuminating Teachers' Informal Learning:

Shaping Professional Development and Schooling Reform

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A) Objectives

This paper has two purposes. The first is to describe an ongoing empirical research study (one subsection of the Work and Lifelong Learning—WALL network) designed to examine the ways in which elementary and secondary school teachers engage in their own professional learning "on the job" - both in formal contexts, but also importantly in their day-to-day "informal learning." The first section of this paper describes and contextualizes this research (background, methods, and data sources) and summarizes some general findings.

The second and central purpose of the paper is to further discussions on one aspect of "professional development" which seems to have little coin in the dominant literature – the important role of informal (self-)learning. One example might suffice to suggest the magnitude of this mode of education: How often have we heard, from someone experiencing a new teaching or administrative setting, that "it was a steep learning curve, but I've certainly benefited from the experience!" Clearly, much of this "steep learning" has occurred in informal, but powerful ways. How might we better understand, and build on, informal learning as an important means to fulfill "professional development" objectives? To what extent might teachers themselves be involved in planning and undertaking these learning activities? To what extent can policy relating to the workplace be altered and enhanced in order to promote and support teachers' own informal learning in the acquisition of needed new knowledge, skills and understandings? Can research in these areas truly work in the "public interest?"

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B) Theoretical Perspectives/Literatures

While “professional development” programs proliferate across many white-collar occupational groups including teaching, in fact “informal learning” (beyond the formal curriculum of schooling and training programs) may well constitute the primary means by which the vast majority of adults acquire further knowledge and skills. The available empirical studies suggest that both the extent and the richness of informal learning typically have been underestimated by educational programmers and policymakers. In spite of much rhetoric about the emergence of a "knowledge economy" and "learning organizations," there is substantial evidence that the general learning practices and capacities of adults are being systemically underutilized in the paid workplaces of OECD countries (Livingstone, 1998). This seems particularly true (ironically enough) for those working within school systems; even a superficial review of the very extensive literature related to teacher knowledge, teacher learning and teacher professional development makes it clear that the task of assisting teachers in their ongoing learning continues to challenge those within school systems who are responsible for achieving these goals**.** Understanding the interrelations between teachers’ formal educational participation and engagement in multiple forms of informal learning remain poorly understood. Illuminating this informal-formal dynamic could inform policy and practices to sustain and better support teachers’ professional development.

The meanings and uses of “informal learning” are multiple and somewhat contested in the literature (see Colley et al, 2004). We consider *informal learning* to be:

> any activity involving the pursuit of understanding, knowledge or skill which occurs outside the curricula of institutions providing educational programs, courses or workshops. . . . Explicit informal learning is distinguished from everyday perceptions, general socialization and more tacit informal learning, by peoples' own conscious identification of the activity as significant learning. The important criteria that distinguish explicit informal learning are the retrospective recognition of both a new significant form of knowledge, understanding or skill acquired on your own initiative and also recognition of the process of acquisition (Livingstone, 1999, p. 3-4).

An international body of research, first initiated by Allen Tough (1979), has now empirically established that most adults continue to be engaged in a very substantial amount of self-directed informal

learning (an average of five major projects and over five hundred hours per year). There is widespread consensus that informal workplace learning is both extensive and important (U.S. Department of Labor, 1996). In the advanced industrial countries we hear frequent claims about the importance of informal learning for successful technological innovation and organizational restructuring (e.g. Nyhan, 1991; Senge, 1990). Insightful conceptual studies have gone well beyond simple formal/informal dichotomies to more nuanced distinctions of means and outcomes of learning (Lave, 1982; Thomas, 1991; Lankyard, 1995). But there has been very little recent empirical research anywhere on the deliberate informal learning activities of either youths or adults, and even less on how informal learning is related to formal education and training activities throughout the life course (Livingstone, 1998) particularly as it pertains to the ways in which teachers themselves engage in their own development. The empirical research being described in this paper is one recent attempt to explore these issues.

Closely related to the issue of teacher learning is that of "teacher knowledge" - another theme -which underlies the purposes of this study. As compared to teachers' informal learning however, there is an extensive research literature underpinning various perspectives on teacher knowledge – what it is, what it might be, what it should be, how it is acquired and/or enhanced, and the nature of its relation to student and school success (Briscoe, 1994; Klein, 1996; Gibson and Olberg, 1998; Donmoyer, 1995; Ontario College of Teachers, 1999). Questions about how this knowledge, and its acquisition, intersect with the informal learning practices of teachers remain largely unanswered however. To date there seems to have been little attention paid to how teachers themselves see these matters personally - what they think is important to know and to learn, how they would like to engage in this learning process, and what they are already doing in this regard. This study attempts to investigate this under-researched terrain.

C) Modes of Inquiry

The study being drawn on for this paper has been in process for eight years now, and has combined a number of qualitative and quantitative measures. In 1998 and again in 2003, extensive (8-page) questionnaires were mailed out to randomly sampled elementary and secondary schoolteachers across Canada (n=1500 and 2000 respectively), with effective response rates of approximately 50% on each occasion. In addition to answering general background and workload questions, respondents were asked to comment in detail on their informal learning in their workplaces, their homes and their communities in the past year, and on their participation in formal learning events, including courses, workshops, conferences, etc. Other questions also explored the ways in which workplace relations, and government policies and programs, intersected with their desire for, and engagement in, both their formal and informal learning practices.

In the years following each national survey, a number of more qualitative projects were undertaken, to provide more complex data on the ways in which teachers took up issues related to their own learning. After the initial 1998 survey, a follow-up phase involved identifying a sampled group of 25 teachers, from those completing the questionnaires, who agreed to keep 24-hour time-diaries for two, one-week periods (November 1999 and February 2000). These diary templates required respondents to recording all activities over the 24 hour day during each week, including any instances where they engaged in formal or informal learning. These diaries were coded and analyzed in relation to the responses they had provided on their earlier survey questionnaires. Subsequently, four teacher-diarists were interviewed at length to follow up, particularly on the various formal and informal learning activities on which they had reported in their diaries.

In 2004 and 2005, following the 2003 national questionnaire survey, a total of thirteen teacher focus groups have been conducted in several provinces across Canada. Again, building upon the data collected in the surveys, participants were asked to explore issues relating to their own learning and professional development, and the ways in which government policy, and workplace relations, intersected with this

learning. Apart from interviewing a cross section of practicing classroom teachers (by gender, age and level of grade taught), focus group interviews were conducted with occasional teachers in one urban school board in Ontario. Most recently individual interviews were conducted with beginning teachers in the same urban center.

D) Summary of General Findings

Given the diverse methods employed for gathering data from teachers, we were rewarded with a rich array of data from which to construct a picture of how teachers engage as learners. Based on a comparative analysis of their questionnaire responses, and the more qualitative data collected from the diaries, interviews and focus groups, it is clear that most teachers across Canada are significantly engaged in their own further learning, both directly related to enhancing their capacity to engage in their day-to-day teaching responsibilities in the classroom, as well enhancing their overall general knowledge.

Not surprisingly over 90% of all teachers surveyed indicated that they had engaged in formal courses and workshops in the previous year (with a median of 4 courses / workshops)[2]. In terms of the time committed to formal learning activities, full-time teachers reported an average of about 7.5 hours weekly. Slight differences were noticed across a number of variables and are presented in a larger WALL teachers working paper (Smaller et al., 2006).

In general, teachers were also very engaged as informal learners reporting 4.1 hours per week of work-related informal learning, unchanged from the 1998 survey. In relation to their work, almost all respondents indicated that there work-related informal learning has been very helpful (51%) or somewhat helpful (46%). In the interviews teachers consistently spoke to the necessity and value of learning informally with their colleagues and/or mentors. Multiple statements were made by teachers such as the following:

Teacher 1: Okay, well I was in great need of professional development this year. And actually

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[2] This high percentage places teachers in the upper most end when compared to the general labour force at large (Smaller et al., 2005).

my greatest source was another teacher who became a partner to me…

Teacher 2: I think the best professional development I have ever had that I had gotten the most from is talking to people in my own school, and having the time to do that…

In addition to work-related informal learning, respondents averaged 7 hours per week with community, household, or other related informal learning. A significant number also suggested that such informal learning in other domains was helpful in their work as teachers. The upcoming sections elaborate more fully on informal learning as grounded in the survey and interview data.

Workload intensification was also a dominant theme of the project analysis. In the survey almost 80% of respondents reported that their workload had significantly increased (44%) or increased (34%). The total number of work-related activities being reported in 2003 produced a mean of 50.2 hours compared with the mean of 48.9 hours from the 1998 survey. These reported workload findings are consistent with other Canadian studies of teacher workloads that asked the same kinds of questions over the past decade (Smaller et. al., 2006). Workload intensification was also a dominant theme in the focus group interviews, sometimes discussed under the term "accountability," which was explicated with reference to the downloading of administrative duties onto teachers, increased paper work, increased reporting on students, increased supervision, etc. In turn several teachers reported that this intensification impacted negatively upon their time (and energy) to engage in learning, both formal and informal. The 2003 survey results show a fairly significant increase of 1.3 hours per week of work-related activities; however, the significant numbers of respondents indicating workload increase on an independent question may also be suggestive of a compression of activities, or more diversions from what they conceive as their central tasks (i.e. curricular objectives). Also related is the high number of respondents reporting that the "overall level of stress" in their work had "significantly increased" (46%) or "increased" (35%). Again, the focus group interviews provided some illustrative examples of "compression" and increased tasks, accompanying stress levels and their

negative impacts upon teachers' health or wellness[3]. A few snippets are provided as examples:

> *Teacher 1: I don't know how to say that, like when you are in the classroom all the extra things that you are being asked to do and I know it's just one piece of paper here, and one piece of paper there and two pieces of paper here, but they all add up. And the amount of anything from supervision time, I mean they are all little tiny things but they are building up to being a lot of time. And that's the time you might have spent planning your phys-ed program that you just learned in wherever [workshop].*
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> *Teacher 2: I used to direct plays, the good creative stuff we used to do. Our kids are more challenging, our classes are bigger, I teach English I have more marking that ever before. I went to bed at 2 o'clock last night. We have more mechanical tasks. I have three e-emails so I must now check three e-mails. I have now three phone message machines I have to now check. Parents can access anyone of those and thus more communication that's happening, that's the problem. And that takes more time and that creates more stress…*
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> *Teacher 3: …we've had all kinds of things and this was the first time in my 25-year career that I apply for stress leave twice. Twice that I felt heart palpitations, shortness of breath, constant crying and feeling like I was never good enough [voice starts breaking as she tears up]. And I left the school…*
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> *Teacher 4: And now that's just so commonplace. I mean now with the e-mail we have teachers that are going berserk because there are parents e-mailing and saying we want a report every week on how their kid is doing in high school – every week. And they feel entitlement to that, and it's like where is our boundaries or whatever.*

(E) Informal Learning

Focus on the survey data

Our working definition, as stated above, considers "informal learning" to be conscious and intentional, rather than tacit and incidental. The survey booklet mailed to the respondents included a description of the three sections with a definition of informal learning as:

> *…learning that you do outside of any formal classes or organized programs.* This includes informal learning which takes place in your home, your community and your workplace. It includes any activity, and any subject in which you gain knowledge, skill or understanding. *It can be learning you have done on your own or with other people. It can be planned or it can just happen.*[4]

Admittedly this statement offers some room for interpretation (for example, being "planned" or "just

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[3] In spite of these pressures, however, among full-time respondents, 32% reported that they were "very satisfied" with their jobs, while a further 55% were at least "somewhat satisfied." By comparison, only 8% were "dissatisfied" and 2% "very dissatisfied" with their job.

[4] Canadian Teachers Learning Survey 2003, p.1

happening" gives a certain breadth). Moreover in the interviews where respondents had the opportunity to ask for clarification around a definition of informal learning (and occasionally did so), there were still varied uses of the term by respondents as read from their responses. What is most interesting to us in analysing the results of the question concerning the number of hours teachers report for work-related informal learning is both the great range of hours reported—from 0 hours to 71 hours[5] per week—and the significant number of respondents reporting less than 1 hour (12.5%). It is certainly difficult to imagine how a full-time teacher averages less than one hour of informal learning a week. The other extreme also provokes attention. We suspect that those respondents who reported on the upper end (say above 20 hours), might identify with the following responses from interviewees:

> *Teacher 1: There is nothing that impedes my informal learning. I do what I want to do, sheer existence whatever you are interested in, you are learning all the time so there aren't any specific things that I can identity that this is a challenge to informal learning. I think if I was totally asleep that would be the challenge. As long as I'm awake and conscious I might be dreaming and that might stimulate . . . but I can't think of anything that would constitute the challenge of informal learning.*

> *Teacher 2: Informal learning: I don't really see anything to stand in your way there other than tiredness sometimes. But just one thing we were talking about before in terms of informal learning that everything for teaching I think, everything impacts upon it. .. .everything impacts upon teaching if you want it to, everything you do. So for the informal part it's everything you do can be a part of what you do the next day in school.*

> *Teacher 3: We just do not stop like looking out the windows here; okay there are Space signs [museum]. I have not been there in a while that would be a good place to take my Social thirteen class. I will find something there at the IMAX; I should look at their catalogue. I am looking over here at this building and okay that is a butt ugly building look at the architecture on that. I do not stop. .. .unless I am watching TV that is absolutely mindless, some sort of sport, but other than that I do not stop I am reading stuff papers, magazines, books that revolve around the Social Studies Curriculum. And the reason I do it is because it is around a subject that I enjoy.*

We also suspect that those reporting "0" hours and those reporting tens or scores of hours have differing understandings of informal learning, the work of teaching, and/or their inter-relation. Is informal learning necessarily a product of the act of teaching? Or would this learning be tacit (or is it teacher dependent)? Would teachers committed to models of reflective practice or action research, for example, be

[5] Any higher reported values were capped at 71 hours.

typically informally learning (aware and intentional) while teaching, or does the learning come after the experience of teaching in time set aside for reflection, engaging colleagues, or reading/ writing? Does informal learning include the activity of reading the newspaper daily (for social studies teachers), or the activity of strategizing on the car ride home about the next day's approach for engaging a difficult-to-control student in the class? Or more conceptually, what is the relationship between the nature (and temporality) of the teaching-learning experience and the *recognition* that new skills or knowledge have been learned? Clearly, as educationalists and researchers are well aware, conceptualizing and codifying informal learning takes place on "messy" terrain. This complexity and challenge is evident in the work of Colley et al. (2004) who suggest that we might consider the "formality" and "informality" in the context of any particular learning event.

To attempt a very modest untangling of such messiness, two groupings (one reporting less than one hour per week of work-related informal learning, and the second reporting ten or more) were constructed for comparisons to other categories. Some interesting results are organized in the table below (see Appendix A for statistical details). The average values (means) presented include only full time classroom teachers.

Groupings: Hours of Informal Learning Per Week	**Average Hours of informal learning per week**	**Average Years of Teaching Since Qualifications**	**Average Hours of formal learning per week**	**Average Working Hours at School per week**	**Average Working Hours at Home / Elsewhere**	**Average Total Work Week**	**Average Hours using internet at home**
Less than One hour N=70	0.2	19.1	4.0	39.6	8.5	48.1	2.9
More than Ten Hours N = 60	17.3	15.9	12.4	45.0	11.2	56.0	4.1

A number of conjectures are possible in analysing these numbers. First, there is significant difference in the seniority of the teachers between groups, suggesting that more junior teachers are spending more time engaging in learning. Perhaps beginning teachers are more active in their informal learning as they are adjusting to less familiar conditions. Is there a threshold level whereby after a certain number of years,

informal learning drops off significantly? At present, our analysis has not confirmed such a hypothesis. Still, the interview data does suggest that teachers' seniority (years of experience) affected their engagement with learning in a few ways. Early in their careers, apart from its direct usefulness to teachers' practices, teachers take particular certificate courses to increase salaries and teaching options. Beginning teachers also seem more likely to seek out advice or ideas from their colleagues (and consider this interaction as learning) than more experienced teachers who may see their interactions with other peers as more on the side of teaching rather than learning. Of course, changing teaching assignments, grade levels, or new curricula likely increase the need for, and participation in, (informal) learning by all teachers, if differentially.

Second there does not seem to be any "substitution" effect, where teachers engage more in one form at the expense the other. Rather, teachers reporting highest levels of informal learning are also involved in significantly more formal learning. We may surmise, rather, that the formal learning activities intensify or multiply periods of informal learning and vice versa. For example, formal learning activities may provide some of the content that is later shared or tested in more informal scenarios or provide the contacts for future collaboration. One teacher quoted above who tended to see all of his conscious activities as informal learning, also had heavily invested in formal learning in a doctorate in education and multiple technology courses; in turn, the expertise garnered in the technology courses supported collaborative projects and new learning with some colleagues in the school. Conversely informal learning embedded in classroom practice compelled some teachers to seek out formal courses or workshops emphasising a particular content or skill set.

Given that the "informal learners" group report about 17 hours more, it would make sense that there overall working hours would be longer; our table shows that this group has a total work week that is 8 hours longer. As there still remains a difference of 9 hours between these two quantities, we can surmise that the teachers reporting many informal hours are both spending more time in informal learning outside of their scheduled timetable, but, that also, they consider themselves to be informally learning for a substantial

amount of time during some of their teaching, prep, marking, etc. We might account for this difference by teachers' alternative understandings of the teaching-learning relationship and/or alternative conceptualizations of what constitutes "informal learning" as suggested earlier in the paper.

A few other interesting differences were found between the two groups. First, a greater percentage of the "informal learners" considered that the informal learning related to each of volunteer work, housework, or other spheres was also helpful in their workplace. Again this is suggestive of the wider parameters that this group might place upon defining both informal learning and the work of teaching. A greater percentage of the "informal learners" also reported an increase in overall workload in the last five years (85% as compared to 75%). A greater percentage of the "informal learners" also reported that their work was stressful "all" or "most" of the time (56% as compared to 39%). However, a greater percentage of this group also reported greater job satisfaction (89% as compared to 79%). Again it is difficult to understand the situation clearly from these numbers. Perhaps these "informal learners" are stressed in relation to their longer hours of work, in part produced by their attention to their learning (both proactive and reactive). And yet this engaging in learning also may be a factor in making their job more satisfying. In the next sections attention is turned more to the interview data to get a greater sense of teachers own articulations of their engagement with informal learning.

Focus on the interview data

As stated above, most of the interviewees emphasized the importance of informal learning as an indispensable and an ongoing part of the work of teaching. While the level of participation in *formal* learning seemed to be contingent on a greater number of factors, such as: costs of courses, career stage, course availability and relevance, informal learning was presented by many teachers as a little more constant albeit somewhat dependent upon structures and processes supporting contact, collegiality, and collaboration.

Lack of time was reported in teacher interviews consistently as the primary obstacle to informal

learning (and one of the most emphasized constraints for participating in formal learning as well). This finding is consistent with Lohman's (2000) research on inhibitors to informal learning where lack of time was found to be the predominant inhibitor. And as in the Lohman study, the problem of insufficient time was typically explained in the context of work intensification as related above[6]. For example, the time pressure created by the increase in workload, for some, seemed to directly impact upon the quantity and quality of collaboration with colleagues. In addition, some teachers spoke about other impediments such as scheduling without common planning times, or the lack of a common meeting area. An anecdote repeated was of the teacher working alone while eating their lunch rather than going to the staff room. Another, was administrative downloading with multiple manifestations—such as how the department heads who, now with full-teaching loads, could no longer play a coaching role or free up teachers to observe their colleagues teaching—diminishing both time for learning and infrastructural supports to learning. A few quotes for illustration will suffice here:

> *Teacher 1: The paperwork. It impacts on the time that you might do some of that informal learning after school or at lunch because you are busy filling out forms in triplicate or putting together yet another referral package for an assessment.*
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> *Teacher 2: Probably most of my informal learning is talking to others, trying to network. When teachers had to increase their workload in secondary system, teach the extra class, there was less time to talk to each other. Our staff room was removed in the funding formulae and so with no staff room and no common place to meet and no common time to meet, there was more of an earnest need to just engage and dialog with each other – what are you doing in your classroom? That closed our idea of you trying to find out what everyone else is doing and creating teams, learning teams that we could talk with each other what learning is going on. So it would be generated I suppose, I still call it very informal, very haphazardly but in a desperation to figure out what's going on. So we are more isolated and therefore a need to talk but it's not there.*
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> *Teacher 3: . . . unfortunately our latest contract allowed that cap to be pierced after January so some classes do get very large, which then again affects the whole workload issue, which allows for less time for formal learning. What has affected me because I am in a small school so there is a large amount of supervision time which perhaps high school teachers do not have to deal with but my planning time now is less than my supervision time. So I do 160 minutes of supervision and I only have 120 minutes of preparation time [per week]. So that is where it cuts down on my informal learning, and it cuts down on that informal congeniality thing because you are always on duty. So you*

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[6] Interestingly enough, as in the Lohman study, increased administrative tasks and the perception of having to support students with greater needs were two of the most significant changes reported by teachers in their working conditions in recent years.

do not have a chance.

Teacher 4: I think one other thing I would like to add to my list is energy. I think sometimes I run out of energy to do the next thing. And it is real hard to learn how to have enough energy before school because I do a lot of things before I even walk into the classroom. I have two children to get ready to go to school, and my own things that have to be done and then you make it through the whole day. I do not think in a year I have three lunch hours to myself, and we have no recess in our school. And then I go right home to being a mom, and getting dinner ready and finding out who has homework, you know about it Ken.

Also, in the context of workload intensification, teachers sometimes spoke of informal learning almost as a survival mechanism—learning how to manage amidst all the challenges—rather than as a more autonomous activity directed proactively by the teacher in an area of pedagogical interest. For example the following teacher quotes illustrate the "survival" side of informal learning:

Teacher 1: And I think because the working conditions have changed so much, the formal learning has decreased and the informal learning has skyrocketed because you are constantly learning. You have to learn that new curriculum, you are just moving along, moving along, so it's never ending.

Teacher 2: I think we learn to do whatever we can to be successful at whatever our success is: whether it is success for our students or success in your personal life or success in getting through the day. Expedience is the word.

This "on the go" and "getting by" informal learning, if considered within the definitional bounds of informal learning, also leans toward "reactive" rather than "deliberative" learning, categories in Eraut et. al.'s (2000) typology of "non-formal" learning. While some teachers clearly recognized the existence and pervasiveness of this "survival" mode of learning in response to intensified workload with insufficient supports (lack of timely training, learning new software in the process of doing digital report cards, teaching new courses before textbooks have arrived, repairing photocopiers, etc…), the teachers spoke to more of the proactive meanings and uses of informal learning in their work. For example, the teachers interviewed did not typically associate their "learning" (and their desires for learning) to the technical or administrative demands impacting their workload to which they clearly were responding. While the interviewer drew out this connection for some of the groups in the context of the obstacles to the teacher's learning, the teachers seemed little interested in this "survival" aspect of learning across the wider dimensions of their work,

quickly refocusing their discussion to what they perceived as the needs of the classroom. The researchers too are interested in the more deliberative or autonomous side of informal learning that might offer insights to policy in professional development and reform. In the next sections the focus group interviews are scrutinized to attempt to make some generalized statements about the kinds of informal learning teachers are involved in, and value, in the context of professional development.

In the ten focus group interviews conducted with full time teachers in four different provinces, including teachers from urban and more rural schools, we necessarily confront differing backgrounds, practices and opinions of the participating teachers. As the teachers self-selected themselves, they do not represent a random-sampling, but rather individual teachers interested and willing enough to share their perspectives on their work and learning in a group setting. We also understand the inherent limitations (and advantages) of the focus group interview which has its own dynamics projected with the kinds of speech acts that respondents (feel the need to) perform (for example, in positioning oneself as the ideal learner, the experienced and "expert" teacher, the good listener, or the one who pushes or even "bullies" for self-sameness and consensus). Teachers may have felt secure enough or not to be relatively honest and open to others in the group (or to themselves), and the degree of such openness remains somewhat opaque to the researchers viewing the transcripts. In acknowledging such limitations, we were struck by the spontaneous/rapid responses and very full discussions which sometimes pushed past the timelines set out for the interviews. A few teachers mentioned specifically that they had never been asked about their learning and that the lack of teacher voices in the research or policy spheres was indicative of one major problem of professional development as constructed for teachers without their participation. What we have synthesized as our findings is tentative but not surprising in relation to the growing literatures—of teacher research, action research and reflective practice—emphasizing the importance of teacher ownership of learning, collaboration *in context* with others, time for integration, implementation and reflection, and the importance of the school culture / administration.

Virtually all teachers spoke of the importance of talking and sharing resources with their colleagues. Even in the context of discussing formal learning in conferences or workshops, teachers often highlighted the importance of meeting and talking with other teachers in the in-between times (for example during coffee break)[7]. While a few teachers spoke of enjoying or valuing contact with teachers across other contexts—for example elementary with secondary—the majority of teachers consistently elevated teacher talk or collaboration between colleagues with similar teaching assignments (whether by grade level or subject discipline). Use of terms like "relevance," "usefulness," "hands-on," things to "take in the class tomorrow," signalled the importance of sharing ideas around one's immediate context of learning and demands of teaching. Similarly a number of teachers spoke of the greater degree of learning through collaboration around shared tasks such as evaluating a common set of exams or building curricula units. A few teachers spoke very negatively where collaboration was mandated around some particular educational theme bringing teachers together in (prescribed) groups. Some formal professional development activities where further constructed as irrelevant in/by describing the teacher-leader of such activities as "never having set foot in a class room in x number of years."

In pressing teachers to speak about the most useful kinds of collaboration to support learning, a number of specific recommendations surfaced. Several teachers spoke highly of the chance to observe their colleagues teaching. They valued both the chance to see other ways of approaching a lesson or a class, as well as the shared context to discuss teaching methods and ideas. This opportunity was sometimes made available by a teacher's individual request, suggested by a supportive administrator, or was readily available in team-teaching assignments. Consider how two teachers discussed the opportunity to observe:

> *Teacher 1: And I've seen this happen that sometimes Principals will free up teachers to go visit another teacher and see what they are doing. Just to sit in their classrooms for the day, not to read with kids not to do anything else, just to sit and see what they have done on their walls, to*

[7] The WALL project has recently been conducting a series of interviews with beginning teachers in an urban board in Ontario. What is striking is the emphasis and intensity of responses the value of meeting with and talking with other teachers. Even in the context of interviewing new teachers at a formal seminar organized by the board, these new teachers are singling out the informal talks with other beginning teachers as most significant for their learning.

see how they interact with kids, and to get a totally different perspective because at the five or four year point I think that is really good learning. I am still okay but sometimes when I see other people doing things I think that is brilliant I did not know about that. And even to just have a day once a year to say I am going over to Ken's class for the day.

Teacher 2: And I think that in our Board the mentorship where you can apply for two to three days where you can go into someone's classroom anywhere in our district and it is informal. And girls came into my classroom just to see different ideas and methods of teaching. I think that is the most positive thing, and I think that it came from the union…I am not sure. And nobody knows about it, it has only started this year, and I think that is real good PD.

While this form of informal learning seemed highly valued, the interviewees infrequently practiced it. One teacher suggested that it become formalized in some way instead of being left up to the initiative of the teacher requesting it. Problems of "leaving one's own class" and whether fellow colleagues would be assigned to cover the absence were discussed in this context. Another common suggestion for supporting informal learning, especially in the context of beginning teachers[8], was "mentoring." Many interviewees described an increase or decrease in mentoring over the years, or from one school to another, but typically all spoke of its positive value. A few of the more beginning teachers[9] spoke of a mentor-colleague as the single most valuable support for their informal learning. Some of the more experienced teachers felt that being in a mentoring relationship provided rich informal learning for both mentor and mentee.

In general teachers often spoke critically of prescribed professional development activities that had a "one size fits all approach." Teachers, who felt that they already had the expertise or felt that the particular professional development focus was not relevant to their particular teaching assignment, spoke very negatively of such mandated experiences. Professional development "trends" were also spoken about a number of times. While some teachers felt that formal workshops stressing "literacy" (as one example of a trend) were directly helpful to their work as teachers, others saw these trends as diminishing their own professional developments interests and autonomy as learners. Some teachers with many years in the classroom reported that the trends tend to repeat themselves over time, or spoke of the "swinging pendulum."

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[8] But not only suggested for beginning teachers.

[9] Our focus-group interview sample was skewed towards the more-experienced end of the spectrum. Given the timing of these interviews we speculated that the younger teachers had less available time to commit to the interviewing.

From their historical perspective these trends seemed to diminish the autonomy of teachers who had to constantly adapt to the latest trend making its way down to the classroom teachers. It was noted that these trends were often politically rather than educationally motivated.

Under the conditions by which teachers sometimes experience "professional development" and the lack of attention given to "informal learning" generally, it is not surprising that teachers in our groups stressed the importance and value of collaboration. And while the constraints of time, resources, and top down delivery (external constraints) were commonly mentioned, teacher-to-teacher dynamics or the school's "culture of learning" were less mentioned[10]. One interesting example that it did enter into this terrain follows:

> *Speaker 1: Some how or other, you know just part of my experience so far, some schools seem to have more of a culture of learning than others and I don't know what it has got to do with it but the culture is kind of there's a lot of belonging and a lot of feeling goodwill and good feeling. And in those school cultures I'm more inclined to hear somebody say well you know there's some really interesting programming on the public broadcasting that you might take up today. We hear that kind of stuff and you talk with a lot of different people even people you are not necessarily closely connected with throughout the day or in the halls or in the staffroom and you do a lot of your kind of ancillary learning, you continue on with your stuff outside of school time. It's just that shared culture of we are all interested in what's going in kids' lives, and what we are doing and what we can do differently or better*
>
> *Interviewer: And how does the school come like that?*
>
> *Speaker 1: Yeah, what a wonderful challenging question for me and I don't know. It always has something to do with administration. I don't know what, the nature of the administrator as a person who cares.*
>
> *Speaker 2: And I think its dynamics because just like the classroom you can have the staff that's divided and they are doing their own thing and then you can have a staff that can change within a year or two, you can have a staff that's love to laugh and you go out together.*

In this dialogue we do get a sense of the importance of social relations in the school as a kind of foundation for promoting and sustaining productive informal learning. There is a wide spectrum of literature in the area

[10] An absence for these researchers is the teacher-teacher dynamic (albeit embedded in the school culture) surfacing only obliquely in a few coded comments or in the body language of one teacher in listening to another in the interview sessions. This may be seen as a limitation of what we were able to garner through the interview process; on the other hand, under conditions of work intensification, public scrutiny, and externally imposed professional development, teachers' resistances to learning learning from and with each other might be too difficult to uncover in such interviews.

of supporting (cultures of) collegiality and collaboration amongst teachers (One important conceptualization that generated a set of articles on obstacles and challenges to teacher collaboration can be found in Hargreaves & Dawe, 1990). In the interviews, the importance and role of the administrator in supporting (the conditions for) teachers' informal learning was commonly cited—for example, one teacher stated:

> *I think it really depends on your administrator, if your administrator is supportive, I mean I've heard of administrators and I have had, they'll come into your classroom to give you release time to go do something, I mean that's great. And there are others that would just stay in their office and you won't even see them in your room. Once I had one I didn't know what grade I was teaching for six months. So it really depends, are they supportive, are they not – that's huge.*

Besides learning from/with colleagues, reading and surfing the Internet were commonly mentioned. While internet use was not emphasized by all teachers, those who did report utilizing the internet stated that they did so extensively and found it very helpful. A number of teachers made similar comments as, "I do not know how I taught before the internet. I take so much material off of there especially because I have had such a turnover in the subjects that I taught." By reading and watching television and videos some teachers worked to be in the "know" of pop culture or world events to draw on these to make connections with students to the curricula. For example, one teacher said:

> *I was trying to explain how Shakespearean. . .fiction and all this and you can just kind of [see that] this is going no where, so I said okay write to me in MSN chat language. Try and write me a letter that I cannot understand and I am really good at language . . . right over my head, I have no idea . . . and they loved it. And it was a mutual lesson, and I really [wouldn't have] thought about it unless I read it in the focus section of The Globe*

Some teachers also reported becoming dependent upon E-mail to collaborate with colleagues across distances; for a few teachers working in more remote areas or in smaller schools, E-mail was essential for getting help. Some teachers spoke of the E-mail as a way of continuing conversations started in conferences or meetings—one example follows:

> *Teacher 1: Right and then also our school district has a monthly Councilor / Facilitator meetings. Our district is huge it goes from Fort Saskatchewan to Camrose to Soiree Park in Vegreville and we all meet together once to see what is going on and that has been awesome for making connections for other people doing the same job I am doing and we communicate through email all the time. I think internet and email have been huge for where I learn things.*

Policy Implications

It would seem that developing and implementing policies to support informal learning, which necessitates both more time for reflection and certain levels of autonomy, in a context of work intensification[11] is bound to be challenging to say the least. From the teachers' perspectives what is most needed and least available is *time*. Without diminishing these perspectives, two other points are critical to this discussion. First, most teachers are already involved in various kinds of informal learning related to, in lieu of, and independent of formal professional development. And second, what comes out clearly in the interviews is that in spite of perceived obstacles to their learning, teachers do seek out and engage in learning activities that they find meaningful. As informal learning is increasingly recognized as a vital, understudied, and under realized aspect of professional development in schooling, it would seem that both teachers and policy makers would welcome ways for informal learning to be recognized and better supported.

The research reported here is a modest attempt to bring some empirical data to inform the ongoing debates of professional development in educational reform. Our work here points to further research in the formal-informal relations especially towards formalizing structures, processes, and practices that can support the context-dependent informal learning of teachers. In recognizing the ongoing importance of informal learning and the need to grapple with how it can be better supported, we are also aware of some looming dangers. "Informal learning" like "life-long learning" can easily be taken up instrumentally within a human capital paradigm. Informal learning, especially as a means for constructing the "adaptable worker," can become the responsibility of the individual worker who has to maintain his or her relevancy for a changing economy. At the extreme, funding or opportunities for professional development could be minimized if individuals will take it upon themselves to engage informally to be current and employable. At this extreme, informal learning can become a form of ongoing unpaid overtime exerting great pressure on those teachers

[11] We could also include the market-rationalist reforms tending towards the deskilling of teachers as another constraining condition (for example, see McNeil, 2000).

who try to maintain reasonable work-home boundaries and on those individuals trying to enter into the system. The following quote is illuminative in terms of the blurring of boundaries between work and home heightened by an age of interconnectivity in a competitive world:

> *So we are constantly on call in terms of . . . last night I got an e-mail telling me that I better review something that I had taught yesterday because this woman felt that her child didn't learn it properly and she and her husband struggled to teach him, and the e-mail was sent at 9:30 last night. I had a phone call from a parent this year; she left the message at 3:40 a.m.*

The scenario we would like to imagine is one accentuating healthy relationships across the multiple levels of schooling, and teacher ownership of their learning that is supported by formal processes aimed at equity of opportunity and quality of support. But these imaginings remain fairly abstract. In turning to what the teachers are saying, which was our fundamental starting point, we do not find ready-made solutions. At the end of one focus group interview, where teachers had struggled to answer the questions of who should control professional development or what should be happening with professional development in schools, one teacher concluded:

> *It interests me very much right now that you asked the question, Harry [the interviewer], what could be happening differently in terms of [professional development] in schools? And we are stymied because we end up answering in terms of what are these obstacles, and I just find that interesting. It's something to do with maybe we have to influence our Federation and influence our schools toward more individual autonomy rather than just group autonomy. That's one possible factor but that's interesting to me but we are not sure. It's not like an emerging consensus sort of what we could or should do that would advance us better.*

Still as researchers examining questions of such importance we feel some urgency to draw out policy implications from this focus on teachers' informal learning in this beginning paper. We end with the following list that represents an initial attempt towards recommendations (and further research) that we hope to elaborate upon, in a more formulated paper:

- Greater acknowledgement and study of the informal learning in which teaches are already engaging towards enhancing teachers' autonomy in their professional development. Perhaps "accountability" could be framed around teachers informal learning practices rather than prescribing formal requirements (such as the now defunct Professional Learning Program attempted in the province of Ontario).

- Working at understanding and contributing to the potential synergy between formal and informal dynamics of professional development. Perhaps professional development could have formal elements and generalized principles but open to context and thereby relevant across different classroom scenarios. Also formal activities could think out and plan for ongoing informal activities (translation, implementation, reflection, ongoing collaboration).

- Exploring and utilizing action research type models that can respond to the problems of: "top down" or "one size fits all" professional development approaches, and the lack of sufficient formality (and rigour) involved in the collaboration that occurs in haphazard or less sustained ways.

- Studying the already emerging spaces, contacts, networks, nodes, communities that teachers are “plugging into” to better understand and contribute to informal collaboration across distances and other borders (disciplinary, work-community, state-multilateral-NGO etc.)

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Appendix A: Statistical Details – Informal Learning Comparisons

Repor

Informal Work Learning Grouped		Total Learnin Hours max=7	Work-inform learnin hours max=7	Tota Timeta Dutie	Hours school timetable	Prep Work Hom Elsewhe	Total Wee	Year teachin sinc certificati Q5	Weekly on Internet home
Less than One	Mea	3.996	.242	31.170	8.49	8.478	48.141	19.1	2.92
	N	70	70	70	70	70	70	70	57
	Std.	7.3993	.2553	6.4860	4.576	5.5829	12.209	8.51	2.535
	Media	1.000	.100	29.000	8.00	8.250	45.325	20.0	2.00
	Minimu	.00	.00	21.7	1.0	.00	29.0	2	.0
	Maximu	44.0	.75	52.0	25.	22.5	82.5	35	12.
10 Hours or	Mea	12.425	17.316	34.098	10.92	11.173	56.011	15.9	4.13
	N	60	60	60	60	59	60	60	50
	Std.	18.588	13.088	8.3680	6.186	5.5503	13.327	8.98	3.176
	Media	5.000	10.000	31.975	10.00	10.000	55.250	15.5	3.50
	Minimu	.00	10.0	20.0	2.0	1.0	28.0	2	.0
	Maximu	71.0	71.0	54.0	30.	22.0	84.5	31	15.
Tota	Mea	7.886	8.122	32.521	9.61	9.711	51.773	17.6	3.48
	N	13	13	13	13	12	13	13	10
	Std.	14.321	12.304	7.5283	5.494	5.7077	13.285	8.84	2.902
	Media	1.500	.500	30.325	10.00	10.000	50.000	18.0	2.00
	Minimu	.00	.00	20.0	1.0	.00	28.0	2	.0
	Maximu	71.0	71.0	54.0	30.	22.5	84.5	35	15.

ANOVA

			Sum Squar	df	Mean	F	Sig.
Total Formal Hours capped Informal Work Learning Grouped	Between	(Combine	2295.16	1	2295.16	12.15	.00
	Within		24165.22	128	188.79		
	Tota		26460.38	129			
Work-related learning hours max=71 * Informal Related Grouped	Between	(Combine	9418.96	1	9418.96	119.23	.00
	Within		10110.98	128	78.99		
	Tota		19529.94	129			
Total Timetable Informal Work Learning Grouped	Between	(Combine	277.07	1	277.07	5.04	.02
	Within		7034.19	128	54.95		
	Tota		7311.27	129			
Hours at school timetable Q36 * Work Related Grouped	Between	(Combine	191.11	1	191.11	6.60	.01
	Within		3703.15	128	28.93		
	Tota		3894.26	129			
Prep Work Home/Elsewhe Informal Work Learning Grouped	Between	(Combine	232.55	1	232.55	7.50	.00
	Within		3937.50	127	31.00		
	Tota		4170.05	128			
Total Work Informal Work Learning Grouped	Between	(Combine	2000.82	1	2000.82	12.33	.00
	Within		20766.86	128	162.24		
	Tota		22767.68	129			
Years teaching certification Informal Work Learning Grouped	Between	(Combine	335.02	1	335.02	4.39	.03
	Within		9763.58	128	76.27		
	Tota		10098.61	129			
Weekly hours on at home Q67b * Work Related Grouped	Between	(Combine	38.59	1	38.59	4.74	.03
	Within		854.47	105	8.13		
	Tota		893.06	106			