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ABSTRACT
                This study investigated professional growth as an
individually reflective and authentically collaborative phenomenon. The study
examined the extent to which self-directed professional learning, personal
and shared reflection, and authentic collaboration within a supportive study
group could create changes in secondary teachers' perceptions of themselves
and their work and catalyze professional growth. Eight individuals, including
the researcher, met monthly over 5 months for focused reflection,
professional study, and collaboration. Participants shared group leadership.
Data collection included pre- and post-intervention interviews about
motivation and job satisfaction; questionnaires to assess locus of control,
self-efficacy, self-directed learning readiness, and potential for flow;
journal writings; and participant observation. Motivation was found to be
intrinsic in all participants and demotivation was also largely intrinsic, in
combination with extrinsic factors in some participants. Most participants
indicated shifts toward the optimal center in locus of control and toward
increased self-directed learning readiness, teacher self-efficacy and
potential for flow of work. All participants reported changes in their
perceptions of self and work as a result of the intervention. They felt more
motivated and satisfied, more in control, more confident about their ability
to self-direct professional learning, more confident about their
effectiveness and ability to reflect on their effectiveness, and more likely
to experience flow in connection with their work. Participants considered the
experience deeply satisfying emotionally, intellectually, personally, and
professionally. (Contains 56 references.) (SM)

Teachers Leading Their Own Professional Growth: Self-directed Reflection And Collaboration And Changes In Perception Of Self And Work In Secondary School Teachers

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Abstract

Addressing the themes of transformation and professional growth as self-directed phenomena, and supported by a multi-disciplinary collaboration of secondary school teachers, this study was designed to investigate professional growth as an individually reflective and authentically collaborative phenomenon. Of interest to this researcher was the extent to which self-directed professional learning, personal and shared reflection, and authentic collaboration —in a supportive study group environment— could create changes in teachers' perceptions of themselves and their work and catalyze professional growth. It was of interest whether these changes would be reflected in a cluster of effects on perception associated with the focus group intervention.

Eight individuals, including the researcher, met once a month over a five month period for focused reflection, professional study and collaboration. The quality of the intervention experience, a part of the methodology, was expected to affect the kinds of responses. A number of measures were given before and after the intervention to evaluate possibly resultant shifts along the continua associated with these constructs. Job satisfaction, (which evaluates teachers' sources of satisfaction and dissatisfaction along motivational lines) was assessed prior to and following the intervention. Motivation was found to be intrinsic in all participants and demotivation, in contrast to Herzberg's unipolarity feature, was found also to be largely intrinsic, in combination with extrinsic factors in some participants. This suggests a possibly bipolar feature to the intrinsic motivator factor as Herzberg's model applies to teachers. Additionally, locus of control, self-directed learning readiness, teacher self-efficacy and potential for flow were assessed pre and post intervention. Another interview was conducted post intervention to establish convergent validity for observed shifts in these variables. Shifts were recorded and analyzed for associations within individuals and within the group as a whole. Most participants indicated shifts toward the "optimal" centre in locus of control, and toward increased self-directed learning readiness, increased teacher self-efficacy and increased potential for flow at work. In interview, all participants reported changes in their perceptions of self and work as having resulted from their participation in the study group. They felt more motivated and satisfied, more in control, more confident about their ability to self-direct professional learning, more confident about their effectiveness and their ability to reflect on their effectiveness in the classroom and more likely to experience 'flow' in connection with their work. Participants, (who continued for an additional year to meet in the same style as that established during the research period,) reported having found the experience deeply satisfying emotionally, intellectually, personally and professionally. The results support the notion that collaborative reflection in focus groups for teachers may provide important emotional and moral support for teachers and may also be a powerful catalyst to professional growth, and thereby a useful way of developing learning organizations and promoting systemic organizational transformation. This may be due to the ability of this kind of experience to support shifts in particular areas of perception such as control, self-directed learning readiness, teacher self-efficacy and potential for flow. The intervention activity itself was reported to be intrinsically motivating, both at the time and in a carry-over effect in improved classroom practice. Higher levels of security to take risks was gained through the additional emotional support of a "professional family." While leadership and professional development models continue to be characterized by a 'top down' directionality this study examines the possibilities for 'bottom up' directionality via a grass roots entry point for individual professional growth and organizational learning. Thus leadership theory and practice may do well to integrate these findings and to encourage and actively support this kind of collaborative study group. The impact of an apex buffer such as a principal or a superintendent was not explored in this study, but deserves attention as an area for further research.

Teachers Leading Their Own Professional Growth: Self-directed Reflection And Collaboration And Changes In Perceptions Of Self And Work

Background

According to some, the present education system is an anachronism, locked in a state of self-defeating inertia by entrenched resistance to change, which has in turn created a reinforcing spiral of cause and effect. This phenomenon continues to occur in the face of the political pressure for reform in public education in Ontario. It may be that the educational organization needs to transform in order to remain viable. Thus, the individuals who comprise the organization would also have to transform. Teachers, it is argued, must become students too. This transformation from exclusive classroom authority to fellow learner involves a complex set of changes in perception of self and work. Embracing the emotional challenge of change requires new understandings about schooling, and a teacher's place in it. This study explored the potential for real change from within.

Addressing emotional as well as other issues, this paper is a report of data from a study which explored the potential for secondary school teachers to transcend the traditional emotional isolation and professional balkanization (Hargreaves, 1991) within teaching by coming together to discover common goals, interests and needs. A study group was formed to investigate the possibility for real harmony among apparently competing interests. Designed to foster an emphasis on the common good of the students and teachers within school organizations, while respecting a diversity of perspectives, the focus group created a new educational community, centred on nurturing the synergy of teachers' needs for emotional and cognitive, personal and professional support in the context of complex pressures for educational reform.

There is increasing emphasis on the professional growth of teachers in the discourse of educational leadership and organizational change. Much of the transformational leadership theory purports to incorporate elements of reflection and collaboration (Leithwood, 1992) despite the fact that most school communities find there has been little time and less inclination to go beyond contrived collegiality and goal-directed committee work (Hargreaves, 1991). As a result, there has been a neglect of deeper problems in a system which contributes to the

emotional deprivation of teachers whose emotional labour (Blackmore, 1996), is needed to support it.

The problems of lack of professional growth and resistance to change may be outcomes of incongruence or incompatibility among several domains in teachers' lives; i.e., personal, professional and organizational. See *Figure 1*. Investigating the validity of this hypothesis, and the possible utility of a professional study group as a partial solution —a process whereby teachers might create congruence among the three competing domains— provided the impetus for this research.

Furthermore, the study was designed to explore several particular facets of a possible transformation that may be catalyzed by participation in an effective study group. To this end, changes in perceptions and feelings of teacher self-efficacy, self-directed learning readiness, locus of control, potential for flow in work, satisfaction and motivation were observed and analyzed.

Theoretical Framework:

A fundamental paradigm shift in our understanding of educational administration and organizational change has occurred with the notion of transformational leadership, assisted by the work of Bass (1990), Bennis & Nanus (1985), Burns (1978), Fullan (1991), Kuhnert & Lewis (1987), Leithwood & Jantzi (1990, June), Pate (1988) and many others. This multi-dimensional, dynamic concept continues to be characterized in the literature as a by and large 'top-down' phenomenon. That is, the leader consciously seeks to empower, based on the assumption that empowerment is something that can be effectively bestowed upon a person from outside of themselves. In that model, it is 'from above' that the organization receives its infusion from this new ideology. In this study, the transformational principles of personal evolution were applied with the notion in mind that transformation-inducing professional growth and development may most effectively originate, and thus be *led* from within the individual teacher.

Adapting the principles of transformational leadership to a self-directed application and based on the principle of intrinsic motivation engaged by the promise of self-actualization (Herzberg et.al., 1959), the following dimensions were deliberately embedded in the intervention experience:

1.   shifts in the dynamics from transactional to transformational and from superordinate to self leadership;

2.   a collaborative shared leadership, intellectual stimulation, identifying a vision, fostering group goals, providing individualized support (Leithwood and Jantzi,1990, June);

3.   continual learning, service orientation, radiating positive energy, showing a belief in other people, being synergistic, and being involved in continuous self-renewal (Covey, 1991 pp 33 - 39);

4.   flexible boundaries for what people do to nourish creativity, information seeking and respecting decisionmaking time (Leithwood, Jantzi, Silins & Dart, 1994, pp 38 - 61);

5.   (consistent with Burns', 1978): satisfy higher needs, and engage the full person, mutual stimulation and elevation, convert followers into leaders.

Beyond the notion of transformational leadership behaviours though, is the need for an entirely different conception of the organization. Stephanie Pace Marshall (1995) depicts the shift that is needed as follows :

> We must take our metaphor for leadership not from the machine but from the ways living systems organize. In living systems, growth is found in disequilibrium, not in balance. As leaders in educational transformation, our role is not to control but to enable order to emerge naturally—and we are still learning how to do this well. (p. 8)

Exploring teachers' abilities to lead their own educational transformation and their abilities to enable order to emerge naturally was part of the challenge of the intervention methodology.

Teachers' staff development experience in this province has not been particularly successful. "Only five to eight percent of teachers transfer a professional development session into action" (Lipman, 1991). Most staff development programmes have had little lasting impact on school change or improvement (Fullan, 1982). Furthermore, secondary school teachers in Ontario have remained for the most part isolated in their classrooms and have rarely afforded themselves

or been afforded any opportunity for authentic professional collaboration. This lack of success can be attributed to the fact that rarely have staff development sessions taken into account the principles of adult learning ; i,e, andragogy (Lipman, 1991).

> Why not let the individual be in charge of asking and answering the timeless questions: 'Who am I? What do I need? How can I get help?' ... I advocate self-directed professional development because I think that is the way that the best teachers already operate (Clark, 1992).

Throughout the literature there is empirical evidence to support what Clark is saying. Embedded in his assertions are the concepts of locus control (Rotter, 1966; Lefcourt, 1982); self-directed learning (Candy, 1991); 'growing' self-actualizing, building confidence from within with increased self-efficacy (Bandura & Adams, 1977); becoming 'in charge' or increasingly agentic (Cochran &Laub, 1994), or originating, experiencing personal causation rather than being pawn-like (deCharms, 19668, 1976). The intrinsic motivation (Enzle et. al., 1991, 1996) of self-directed learning creates 'flow' or optimal experience (Csikszentmihalyi, 1990). Leaders are being encouraged to create opportunities for staff to develop and experience personal growth (Covey, 1991; Fullan & Stiegelbauer, 1991; Hargreaves & Fullan, 1992; Leithwood, 1990 June). However, the implications of Enzle et. al. study (1996) and Herzberg's (1959 & 1966) material warn that leaders may at times be in danger of getting in the way of motivation. Finally, there is empirical evidence supporting the positive correlation between teacher self-efficacy and student achievement (Ashton & Webb, 1986), and teacher motivation and student achievement (deCharms, 1976). Herzberg's motivator-hygiene factor construct informs us that the opportunities to grow and self-actualize are powerful motivators for job satisfaction. The extrinsic versus the intrinsic nature of reward and thus motivation become key factors. Further explored is the notion of a community of leaders (Barth, 1988); focused reflection and authentic collaboration (Schon, 1983, Osterman and Kottkamp, 1993); self-directed professional development and organizational change (Hughes (Ed.)1991, Clark in Hargreaves and Fullan, 1992).

In this study, through reflection and collaboration, self-direction and shared leadership opportunities for personal and professional nourishment of teachers were created from the grass roots level.

Teachers working together in research and inquiry find it meaningful and rewarding. Improved results in the classroom are clear. (Cochran-Smith and Lytle, (1993); Teachers' study and discussion groups provide important support and added depth to professional reflection and collaboration. (Osterman & Kottkamp, 1993); Teachers in "Learning enriched" schools report a shared concern about teaching and learning (Rosenholtz, 1989). What has not been explored in sufficient detail is the particular changes in perception of self and work that may in part account for some of the effects these collaborative experience can have on teachers and their professional growth. Among the various aspects of teachers work experience which seem to be affected by collaborative reflection are teacher self-efficacy, readiness to self-direct professional learning, locus of control, perceptions of potential for flow at work and overall job satisfaction and motivation. A closer examination of these particular underlying processes adds to the theoretical scaffolding we may use to understand the connections between teacher collaboration in study groups and a variety of associated professional growth, emotional support, professional self-perception and classroom performance outcomes.

Context of the study:

A maelstrom of change—actual, welcomed, feared and imminent— was whirling in the psychic milieu for teachers in Ontario at the time of this research. This created a climate of grave concern. The need to change what was happening in the classroom, to undergo some difficult to envision pedagogical transformation, added pressure. Public support was typically low. Government had admittedly "created a crisis" and 'on the edge of chaos' characterized the rhetoric in many sectors as well as education. There was extreme pressure to accept the need for change and radical reform in the wake of the Secondary School Reform initiative of the Progressive Conservative Party, led by the Premier of Ontario, Mike Harris. On the heels of social contract days, which cost salary in exchange for compulsory time off, additional severe cost cutting measures ended all hope of increased salary for the foreseeable future. Teachers in Ontario had not had a pay increase for over six years at the time. The following were additional negative employment consequences expected with the passing of Bill 104 (Note: Many of these were later accomplished with Bill 160) : (a) imposed cuts of budgets at every level (b) increased class sizes despite claims to the public of the opposite (c) withdrawal of the right to strike (d) wage roll backs (e) additional compulsory duties (f) removal of headships and

time release (g) elimination of preparation time.

Many teachers have a philosophy of teaching that springs from a human desire to serve the greater good by directing the learning experience of young people. However, in the political and economic climate at the time of this study, teachers found many of their assumptions about their work were under fire. Teachers were being expected to deliver unimaginably more with unfathomably less. They felt disempowered in their own professional domain. Additionally, staff development has by and large been "imposed on teachers rather than developed with them" (Fullan & Hargreaves, 1991). Holmes (1989) alleges that the former is a form of control, there being a critical difference between developing and being developed. "Empowerment gives people the opportunity and necessary resources so they can believe, understand, and change their world" (Lagana, 1989, p.20). This study group experiment then was in part, a deliberate exercise in self-empowerment and self-development.

Importance of the Study

This study has implications for professional growth of teachers, teacher motivation, transformation, learning organizations, and the leadership and administration of schools. It provides insight into some of the reasons teachers seem to thrive in self-directed collaborative reflection study groups. The study explores some of the underlying dynamics responsible for the potential of study groups as a source of help to energize a flagging system pressured to effect changes and desperately needful of ways to fuel the implementation of these changes. Empowering teachers to involve themselves pro-actively in the changes that are needed, through focused reflective practice and authentic collaboration is examined as a potentially effective way of responding to this daunting call for systemic change.

Methods / Techniques / Data Sources

Composition of the group

An offer to participate in a professional study group was made to a number of secondary school teachers whom the researcher thought might be interested. Seven participants were able to make a commitment to the research period of five months and were interested in the prospect of professional sharing. Including the researcher, this made a group of eight secondary school teachers who participated in

the study group experience. There were four men and four women; age ranges from 28 - 52, representing a full range of disciplines across the arts and sciences, which made a heterogeneous group. There was no association between the schools where the participants worked and the individuals of the study group. The decision to participate was a personal one and the entire study was conducted in a private setting.

The Intervention

The group met to share feelings, perceptions and professional interests through focused reflection and collaboration. Three to five hour sessions held from 5:00 to 8:00 or 10:00 usually on Thursdays, occurred once a month over a five month period. There was time for settling in from 4:00 to 5:00, a more structured session chaired on a rotating basis from five to seven. At seven, discussion would continue on a less formal basis over dinner and afterwards.

At the onset, the researcher took the role of facilitator. However, as time went on it became a shared facilitative process. For instance, we adopted a deliberate focus on reclaiming creative energies which led us to commit to acknowledging problems but not becoming mired in them. Any one of us might be heard to ask "What opportunity would you like to create?" and "What is your circle of influence?" (Covey, 1991). These were questions we learned to use to refocus when problem analysis threatened to arrest the flow of discussion and siderail our more constructive collaborative purpose. We worked together on plans we could effect, in domains over which we maintained control, our classrooms. We did this together often with great results. No longer isolated and frustrated by the lack of feedback about our work, we became partners in interdisciplinary units and began to try things some of us had never even imagined. Most plans worked well. Even those with glitches became mere grist for the contemplation and reflection mill. The process became seamless and continuous and went on formally in the group and informally. Not all members were in the same school, but we helped and supported each other in whatever ways we could. Additionally, the rotating chairmanships allowed each group member to enjoy the facilitator role and to have the shared leadership experience. Among the topics of discussion coordinated by the various members were Multiple Intelligences (Gardner, 1993), helping students with dyslexia, Emotional Intelligence (Goleman, 1995), authentic collaboration and

interdisciplinary thinking.

Data Sources

This study employed quantitative and qualitative data drawn from interviews, instruments, journal writings and researcher's observation notes.

•Interviews: The first interview was conducted before the intervention and concerned motivation and job satisfaction. It was administered in order to begin to discover what makes teachers satisfied and dissatisfied at work and to assess the potential role of the study group in enhancing job satisfaction. Asked to recount "a time when you felt exceptionally bad and a time when you felt exceptionally good about your job," this interview guide also asks participants to rate the emotional intensity of the experience on a scale of 1 - 21 (Herzberg et.al. 1959). A second interview was conducted following the intervention to provide convergent validity for findings. Its purpose was to acquire participants' self-report on effects, if any, of the study group experience on their perceptions and feelings about self and work.

•Instruments in the form of questionnaires to assess Locus of Control (Rotter, 1966), Teacher Self-efficacy (Gibson & Dembo, 1984), Self-directed Learning Readiness (Guglielmino, 1977) and Potential for Flow (Sergiovanni, 1992), were administered before and after the study group experience. Changes were recorded and analyzed for associations within individuals and throughout the group as a whole.

•Journal writings were submitted by some participants.

•Participant observation notes by the researcher were kept during the study group period.

Limitations

Conducting research on the effects of an intervention is difficult. The focus group was certainly not the only 'intervention' in the lives of the participants. Furthermore, the qualities of this focus group experience are a product of the unique individuals within it and the synergy of their responses to the facilitator and the

shared leadership dynamic. Thus, the generalizability of findings to other persons and settings is inevitably difficult to determine.

Data Analysis

The data were analyzed in two ways. One was to look at all of the data for one individual, observe any shifts in perception, and to corroborate any observed shifts from instruments administered pre and post, with final interview data.

The second way was to look at the data as a collectivity. The individual scores and response patterns are depicted in the overview table at *Figure 2.* For discussion purposes references will be made to both individual and collectivity findings.

Presentation and Discussion of Findings

Note: A composite table of findings appears at the end of this section. See **Table 1.**

Motivation and Job Satisfaction: There was a distinct similarity among the kinds of experiences chosen as memories of feeling "exceptionally good" about the job. The intrinsic satisfaction of the work itself was clearly in the forefront. Being able to feel they were making an impact, making a difference, expressing their professional creativity, characterized every such story. For example, John, speaking of a period of more than a year where he was highly involved in planning for and bringing about changes said, " I had found a base of involvement." "I felt listened to." "I was part of changes within programmes." "I felt supported and not threatened." I was respected and recognized." "I could express my creative vision." All the factors were present for feeling a high level of *internal control*, and safety to manifest his creative vision of his own *personal causation*, allowing him to be highly *agentic*, affirming of his *self-directionality* in professional learning, building his *confidence* and sense of *teacher self-efficacy.* As a result, his work seemed to him at the time, filled with the *opportunity for flow.* By applying the theoretical construct of this study we can see it was no wonder John was happy.

Motivation and Job Dissatisfaction: The emotional intensity of remembered "exceptionally bad," experiences at work was surprising. Old wounds, even from decades before, seemed to be as raw and angry as if they were new. Notably, the pattern among such chosen experiences was also distinctive. These teachers felt exceptionally bad about their work when they were prevented from accessing the

intrinsic satisfactions they used to energize their professional selves. This occurred for a variety of reasons, sometimes through hurtful and demeaning interactions with administrators and other times through being discouraged and alone with classroom failures. Thus their dissatisfiers were not merely hygiene factors in the sense of salary or general working conditions, perhaps surprising in light of the context of this study. On the contrary, these teachers were most upset at being cut off from the source of their inspiration, the creative renewal of the work itself and their confidence to pursue this satisfaction and its attendant professional sustenance. When administrators were "non-supportive," "punitive" and "confining," it limited the scope for self-actualization and severed the connection with professional self-confidence and the safety necessary to take creative risks. For instance, Alice, reflecting about being taken off a special extra curricular assignment she particularly enjoyed, said, "they didn't value me as a person. I felt they were questioning my ability to teach." "There was no joy." " I didn't try new things. I'd worry a thing to death, and pick it apart , and wouldn't try anything new." The lack of confidence and support by her superiors became a powerful and lasting disincentive for Alice. It could be that Alice's access to her sense of *personal causation, agency, internal control, teacher-efficacy and flow* were affected by the experience. Throughout the group, participants recounted stories of feeling alone with anxiety, disappointment and shame. They also spoke of feeling not known. The sense of isolation from processes of affirmation and encouragement and being known and appreciated by peers and superiors were recurring motifs in the responses. Also of interest, the effect of dissatisfying experiences was reported to last significantly longer than the positive effects of the satisfying experiences, despite the fact that the intensity ratings were comparable.

The purpose of exploring the satisfier/dissatisfier material was to assess the role of the study group in enhancing teacher satisfaction. Teachers are deeply satisfied by the affirmation of the work itself, and in so far as reflecting together about the work is a meaningful part of the process, the study group seemed to provide a valued forum. Passions and pains were equally welcome and sharing in a supportive setting allowed us to become known to our professional others. This was a unique experience for all, and seemed so very unusual that one participant called it exotic. In its exceptionality as professional practice, it was indeed exotic. Further consideration of the *group process* per se appears at the end of this section.

Locus of Control

Of the six participants who completed the locus of control instrument, four shifted toward the middle, becoming less extreme in effect whether that was less internal or less external. According to the literature this is optimal, to become more moderate. However, two participants became increasingly internal. Further research would be necessary to determine the relationship if any between these findings and the study group experience. However, all participants reported feeling more in control and confident about their ability to take control of their classroom situations, of their professional learning and their professional lives in direct association with their participation in the study group. This is a significant finding, particularly relevant in today's political climate. The morale, motivation and satisfaction associations with the relative sense of control may suggest an area for further research.

Self-directed Learning Readiness : Although only marginally so, five of the seven participants who completed the instrument showed increases in self-directed learning readiness. One participant did not change. The other one decreased very slightly. Four of the seven participants reported feeling more capable of conducting their own professional learning. However, all participants reported they found the study group format and the self-directionality of the format an important dimension, contributing significantly to their satisfaction in the experience. They suggest the study group is particularly well suited to professional learning and the professional learning in the supportive context a powerfully positive influence on overall motivation

Teacher Self-efficacy: Six of the seven participants assessed by instrument indicated increases in teacher self-efficacy. All but one reported feeling more confident about their professional ability to meet their challenges. John, who had dropped a significant 20% in his TS-E measures, reported in interview that changes in personnel and curriculum responsibilities had shaken his confidence during the intervening period. It is interesting to note that the measure accurately reflected a loss of confidence as the teacher self-efficacy measures this belief in one's ability to accomplish one's objectives in teaching. Worthy of note is John's comment about the study group in this context for him: " I've been going through some rough times these past few months and my motivation to deal with these things effectively has definitely been higher because of the group."

Potential for Flow: All of the seven participants reported with some emphasis that the potential for flow associated with their work had increased. This measure is not about the organization. It is about the individual's perception of potential for him/herself within the structure and culture of the organization as it is. Instrument scores indicated that five of the seven had increased, while two had decreased slightly. This concept, the potential for flow is a powerful one in that the process of total engagement in the work, like total engagement in anything, is absorbing and creates a sense of timelessness and effortlessness associated with real joy. It would seem that flow is indeed experienced in the work of teachers with students, and with each other, especially in a relationship of support and trust. The isolation experienced by these teachers is what the group helped them overcome, replacing the loneliness and anonymity with being known appreciated and accepted. The emotional foundation of the group experience was reported to be highly relevant to the sense of flow in study sessions and in the carry-over into the classroom where flow with students is always the objective. When you are in flow, time flies. Jill:

> I feel safer, not alone, more confident that I know where I stand. . . . I find myself being a reflective practitioner, and a risk-taker in the school, in ways I would never have done before. . . . The time flies by. Sometimes I wish we could meet more often.

Based on the notion that congruence among personal needs, professional interests and organizational goals can create a flow zone, an original graphic representation appears at *Figure 1*. The study group allowed participants to explore the flow zone in that their personal needs and professional interests were supported and encouraged in the context of ongoing organizational goals. They were able to apply the fruits of their collaborative efforts within the circle of influence of their organizational mandate in their classrooms.

Interdisciplinary alliances were formed. Larry: "Before, I would never have thought of Drama and English relative to my subject, so we're now making games collaboratively, including them in our subject area." As suggestions for other groups, participants noted that you need three hours. The process takes time. For written reflection several participants suggested writing together at the same time during the sessions. The importance of a facilitator to keep things returning to the constructive mode was noted. The shared leadership was important. Stress relief was mentioned by all the participants. It seems clear that the group experience had a direct impact on their classroom performance, health giving stress relief and level of safety and security. All of these things contributed significantly to the quality of their professional lives and the calibre of their professional performance.

Profile of Collectivity

Table 1, which follows, is a compilation of the data from several measures:

1) Locus of control, "L OF C" pre "1" and post "2" with change noted under " ch" as less or more Internal "- I" or "+I", less or more External "-E" or "+E".

2) Self-directed learning readiness, "SDLR" pre "1" and post "2" with change "ch" noted.

3) Teacher self-efficacy, "T S - E" pre "1" and post; "2" with change "ch" noted.

4) Potential for flow, pre "1" and post "2" with change "ch" noted.

5) Pre-intervention "motivation interview" - Herzberg, considering whether or not internal motivation " I.M.", accounted for the "exceptionally good" experience " mot"; and Hygiene factors and/or Intrinsic Motivation factors " H.F. + I.M." as contributors to the "exceptionally bad" experience " demot"; as well as whether the intervention had a positive "+" or other effect on motivation

6) Interview # 2, re sense of control "sense of c", self-directed learning readiness " sdlr", teacher self-efficacy "tse", "flow" and effects of intervention on motivation "mo" indicated with " ∧ ", "––", or a "∨ ".

Table 1

measure	L Of C			SDLR			T S - E			Potential for Flow			motivation interview #1			interview #2 ch
participant #	1	2	ch	1	2	ch	1	2	ch	1	2	ch	mot	demot	ch	
1 John	7	10	-I	.87	.85	-.02	.87	.67	-.20	.367	.38	+	I.M.	H.F.+I.M.	+	sense of c <; sdlr —; tse —; flow <; mo <
2 Alice	8	5	+I	.145	.29	+.145	.56	.62	+.06	.41	.47	+	I.M.	H.F.+I.M.	+	sense of c <; sdlr <; tse <; flow <; mo <
3 Matthew	13	10	-E	.756	.83	+.07	.44	.56	+.125	.426	.51	+	I.M.	H.F.+I.M.	+	sense of c <; sdlr <; tse <; flow <; mo <
4 Chis	4	6	-I	.756	.85	+.09	.62	.81	+.19	.558	.573	+	I.M.	H.F.+I.M.	+	sense of c <; sdlr <; tse <; flow <; mo <
5 Jill	9	2	+I	.85	.95	+.10	.687	.75	+.06	.60	.558	-	I.M.	H.F.+I.M.	+	sense of c <; sdlr —; tse <; flow <; mo <
6 Larry	—	—	—	.487	.51	+.023	.62	.62	—	.53	.54	+	I.M.	H.F.+I.M.	+	sense of c <; sdlr —; tse <; flow <; mo <
7 Helen	14	13	-E	.80	.80	—	.62	.81	+.19	.39	.34	-	I.M.	H.F.+I.M.	+	sense of c <; sdlr <; tse <; flow <; mo <

Results of measures for locus of control, self-directed learning readiness, teacher self-efficacy, potential for flow, motivation interview(#1) and interview #2 (for sense of control, professional self-directed learning readiness, teacher self-efficacy, flow, and effects of intervention on motivation.)

The following patterns are clear from an overview of the findings:

1) Scores for most participants shifted toward the mid range for locus of control.

2) Scores for most participants increased in SDLR, T S-E and Potential for Flow.

3) Intrinsic Motivators were responsible for the "exceptionally good" experiences in all participants.

4) Although there were some additional minor hygiene factors it was predominantly Intrinsic Motivator factors that were responsible for the "exceptionally bad" feelings about work in all participants.

5) In the final interview, most participants reported an increase in sense of control, self- directed learning readiness, teacher self-efficacy, flow and professional motivation as a result of their participation in the focus group.

Conclusions/Results/Point of View:

As motivation was found to be intrinsic in all participants, we can conclude that teachers gain satisfaction from the work itself, and would optimally not be disconnected from this important source of energy and renewal. Teachers are more sensitive to being distanced from their creative flow as a source of dissatisfaction than they are to other more hygiene type factors like salary and general working conditions. This bipolar configuration to the intrinsic motivator factor describes the way Herzberg's model applies to teachers in contrast to the unipolar pattern he discovered with engineers and accountants. Thus, keeping teachers connected to their satisfaction in work is important to keeping schools happy and highly functioning places in which to learn. Doing this well is a challenge to educational leaders and a challenge to the teachers themselves. Apparently they can be aided in this endeavour by participation in study/support groups.

Control is an issue for teachers today. Participation in the study group was associated with the perception of increased sense of control. Rotter's locus of control instrument yielded results from most participants indicating slight shifts toward the "optimal" centre. An inference might be drawn that extreme internality and externality may be modified by participating in the focus group. Although further research would be necessary to establish clearly any correlation here. If study groups can boost teachers' confidence in their self-directed professional learning and

teacher-self-efficacy, they may provide important support where other forms of incentive are lacking. The study group may be a more successful approach to professional learning than traditional modalities for this reason. Perceived increases in potential for flow at work suggest a kind of optimism about the relationship between self and work that participants attributed to their study group experience. These are significant findings in the context of an otherwise largely demoralized teaching force. All participants reported in interview feeling more confident about their ability to be effective in the classroom, and to reflect on that effectiveness. Participants reported being "profoundly affected" by the experience. They felt freer to experiment, to take risks and to be creative.

The blend of emotional support and intellectual focus provided teachers with a highly-valued and rare opportunity to achieve congruency among their personal and professional and organizational selves. The contrasting dissonance depicted in stories of suppressed and violated emotional needs for dignity, participation and access to creative self actualization was soothed by sharing in the group process. Individuals experienced a unique, integrative, healing process, fostered by the dynamic of the group process wherein affirmation of the professional self was inherent. Perhaps the most compelling piece of data is that the participants continued to meet in the same style for an additional year beyond the duration of the official research period. The results suggest that collaborative reflection in study groups for teachers may be a powerful catalyst to their professional growth and thus to the development of learning organizations and systemic organizational transformation. This may be due to the ability of this kind of experience to support shifts in particular areas of perception such as locus of control, self-directed learning readiness, teacher self-efficacy and potential for flow, as well as providing the emotional support necessary to venture into new learning and to overcome balkanization by relaxing subject discipline boundaries with confidence and creativity. The intervention activity itself was reported to be intrinsically motivating, both at the time and in a carry over effect in the classroom. Attributing these effects to the additional emotional and intellectual support of a "professional family," participants demonstrated a greater appreciation for the power of reflection having harmonized personal needs and professional interests with organizational goals.

Educational and Scientific Importance

Educational

• While leadership and professional development models continue to be characterized by a 'top down' directionality, this study has confirmed the viability of a grass roots entry point for individual professional growth and organizational learning. Thus, leadership theory and practice may do well to integrate these findings and to encourage and actively support teacher study groups.

• Teachers' bipolar satisfaction/dissatisfaction pattern, wherein motivation was gained and lost along the same continuum of access to intrinsic rewards of the work itself being enhanced or inhibited, informs us about an important aspect of teachers' will to work. The implications for teachers and for teacher leadership are complex and subtle. Effective leadership practice then, would demonstrate an increased sensitivity to teachers' motivational patterns, especially their ability to become estranged from their own internal reward systems.

• The need for and benefits of providing opportunities for teachers to find congruence between affective and cognitive dimensions, among personal, professional and organizational selves is suggested by the findings of this study.

• Shifts in perception of self and work suggest rich potential for teacher renewal and professional growth, especially when the connections among the measured constructs are considered together. Teachers may need to direct their own professional growth in order to promote the sense of agency and personal causation that can build teacher self-efficacy and in order to promote the total engagement and renewing energy of flow. These findings hold significant implications therefore, for teacher satisfaction, dissatisfaction and motivation as well as classroom performance.

• Furthermore, all of these strands support the underlying concepts of organizational learning and change and personal and professional transformation. In light of the decreased motivation caused by extrinsic reward (Enzle. 1991; Zuckerman, 1978) and the powerful motivational effects of self-directed learning in the teacher-led study group, there are implications for leadership practice. In other words for teacher professional growth, a more appropriate imperative for educational leaders may be Pejza's 'Lead, follow or get out of the way.' The effects of an apex buffer (Osterman & Kottkamp, 1993) such as a principal or a superintendent, were not examined in this study. However this area deserves attention in further research.

Scientific

• Transformational leadership theory which has failed to integrate emotionality and the complexities of teacher motivation, would be well served to explore further these important dimensions in teachers' working lives.

• This study suggests the possibility of meaningful associations among a number of well established constructs that may warrant further study in light of their linkages and their particular application in an educational setting: for instance, self-directionality and motivation; self-directionality and self-efficacy; personal causation, agency and locus of control; flow and motivation.

• It should be noted that the locus of control construct was conceived by Rotter to be fixed, a descriptor in a relatively constant personality typology; whereas Wang's (1983) research found locus of control to have developmental potential as associated with student learning. Changes in locus of control were indicated by instrument in this study. However, simple increased internality was not indicated by measured result. Interview reports of increased sense of control were consistent throughout six of the seven participants however. Thus the locus of control construct may warrant further research as it applies to teachers and their work.

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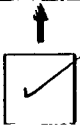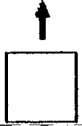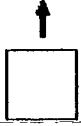(Specific Document)

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