ABSTRACT
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frameworks of the developmental theories of Piaget (cognitive
development), Kohlberg (moral development), Loevinger (ego
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the assumption that a perspective of developmental theory provides
knowledge of how teachers assimilate new information and implement
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operating at higher stages of development show greater flexibility,
are more able to see multiple points of view, and are more effective
in supervisory interaction with preservice interns, in interpersonal
interaction, and in group problem solving in collaborative action
research; (2) teachers' developmental stages affect their
interactions in the school setting and their involvement on
collaborative research teams; and (3) collaborative action research,
as a developmental education intervention, can provide the support
and challenge that encourages developmental growth. Two appendices
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appropriate staff development supports and challenges with teacher
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(Author/LL)

DEVELOPMENTAL THEORIES AND THE

PROFESSIONAL DEVELOPMENT

OF TEACHERS

Sharon Nodie Oja

Associate Professor of Education

University of New Hampshire

Department of Education

Morrill Hall

Durham, New Hampshire 03824

(603) 862-2379

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Developmental Theories and The Professional Development of Teachers
by
Sharon Nodie Oja

Abstract: This paper reports research from four distinct studies of how teachers come to learn professional knowledge based on theoretical frameworks of the developmental theories of Piaget (cognitive development), Kohlberg (moral development), Loevinger (ego development) and Hunt (conceptual development). Studies proceed on the assumption that a perspective of developmental theory provides knowledge of how teachers assimilate new information and implement new teaching strategies. Together these studies indicate the following findings: 1) Teachers operating at higher stages show greater flexibility, are more able to see multiple points of view, are more effective in supervisory interaction with pre-service interns and in interpersonal interaction and group problem solving with colleagues in collaborative action research. 2) Teachers' developmental stages affect their interactions in the school setting and their involvement on collaborative research teams. In this way, a developmental stage approach is a model for understanding the organization, principles, and underlying strategies and changes in individuals' thinking and attitudes. 3) Collaborative action research, as a developmental education intervention, can provide the match-mismatch (ie. support and challenge) that encourages developmental growth.4) Teachers who self-selected involvement in Collaborative Supervision and who sustained their involvement in the program were teachers at post-conventional stages of development.

Developmental theory has powerful implications for teacher education and staff development. Schools may offer programs, projects and activities which differentially attract teachers at different stages of development and in this way support and challenge teacher development.   Two appendices are included. Appendix A compares and contrasts four developmental models in three stages of adult development: pre-conventional, conventional, post-conventional. Appendix B matches appropriate staff development supports and challenges with teacher stage characteristics. Also appended are 39 references.

DE: Adult Development; Cognitive-developmental theory; Collaborative Action Research; Collaborative Supervision; Deliberate Psychological Education;

Developmental Stages; Ego Development; Intellectual Development; Moral
Development; Staff Development; Teacher Development; Teacher Inquiry;
Teacher Reflection; Teacher-research
ID: Hunt-David; Kohlberg-Lawrence; Gilligan-Carol; Loevinger-Jane; Lyons-
Nona; Piaget-Jean; Rest-James; Sprinthall-Norman; Women's Ways of Knowing

Introduction

I was pleased to join this symposium in order to add a perspective from developmental theories to our discussion of the relationship between sources of knowledge about teaching and the professional learning of teachers. Greater understanding of self and others as a developmental process is a knowledge base for professional development. (In previous papers students stages of development have been discussed using the developmental perspective.) In this paper, I focus on teacher stages of development. It matters what stages of development the teachers are operating from. It matters in terms of what they are able to implement, and it matters in terms of what they are able to learn. If you take this stance, then the model for inservice education is to create educational environments and staff development options in which teachers at different stages can choose to become involved and can grow personally and professionally.

Where does professional knowledge come from? Using a developmental stage perspective, what is important is the stage, because knowledge of the stage of development of the teacher helps one understand how new ideas, content, and teaching strategies are assimilated and implemented. Whatever the new content is in a staff development program, there is also a developmental stage perspective which provides the process knowledge for how a teacher assimilates the new information and implements newer teaching strategies. This makes developmental theory a larger umbrella or an important matrix for how teachers develop.

How do teachers learn it? The basis of my comments come from my research about how teachers come to learn professional knowledge in the settings in which they work, how teachers come to develop themselves, and how they come to learn the developmental stage knowledge base. The basis of this paper is my research into how that learning happened in four studies in different staff development programs.

Beginnings

A promising area for teacher education emerged from developmental psychology where research evidence related teacher effectiveness to complex stages of conceptual functioning. Implications from this work indicated that an explicit goal of teacher education and staff development be to address teachers' cognitive structures, specifically to increase their conceptual complexity, ego maturity, and moral reasoning as a means to improved teacher effectiveness and professional development.

The knowledge base of developmental teacher education comes from cognitive-developmental theories of growth which assume that human development results from changes in cognitive structures. The theories of Jean Piaget in cognitive development (1970, 1972), Lawrence Kohlberg (1981, 1984) in moral judgement, Jane Loevinger (1976) in ego development, and David Hunt (1975) in conceptual development all posited a sequence of hierarchical, invariant stages of human development. In each theory subsequent stages are considered to be successively better frameworks for managing one's life in a complex society. Higher stages include the ability to understand more points of view, the ability for greater perspective taking and more complex thinking and problem-solving. A brief comparison of these theories of development is found in Appendix A.

Rationale for a Focus on Higher Stages of Development

I started this work fifteen years ago as an advisee of Norman Sprinthall and in concert with a cadre of doctoral students at the University of Minnesota. The work of O. J. Harvey, David Hunt, and Bruce Joyce and colleagues had provided a key empirical and theoretical bridge connecting developmental concepts to classroom teaching. They were able to document through natural setting research that teachers at higher stages of development functioned in the classroom at a more complex level. Their research suggested that teachers at higher stages may be more flexible, more stress tolerant, and more adaptive than teachers at lower levels. They may be more

able to function in highly student-centered environments where their role is to utilize
the learner's frame of reference and to encourage students to question and
hypothesize. Their research also suggested that teachers at higher stages may be
able to assume multiple perspectives, utilize a wide variety of coping behaviors,
employ a broader repertoire of teaching models, and consequently, be more effective
with a wider range of learning styles (this research base is discussed further in Oja,
1980 and Oja, 1985).

Subsequently, I found in my research studies that teachers at higher levels of
development were also more effective in supervisory interactions with preservice
teaching interns and in interpersonal interactions and group problem-solving with
other teachers in the process of collaborative action research. Lois Theis-Sprinthall
(1984) and Peter Grimmett (1983) are others who verify the effectiveness of higher
stage teachers in supervisory interactions.

A brief review of adult stages of development pertinent to teachers includes the
following descriptions of different stages of development from the Self-protective,
Conformist, and Conscientious stages to the post-conventional Autonomous stage.
These stages of teacher development are based in Jane Loevinger's (1976) work in
ego development.

Self-protective stage - the teacher at this stage, due to his or her own
impulsiveness, reacts in kind to students' anger and is unable to manage aggression.
This teacher may develop a generalized negative response to students and to the job
of teaching which may result in manipulation and exploitation of others. In my work
with teachers I have found only one teacher who scored at the Self-protective stage of
development. Most of the teachers in my four research studies scored at the next two
stages of development, the Conformist and Conscientious stages.

The teacher at the **Conformist stage** sincerely wants to help students and be
liked by students. Consequently, when faced with a student's hostility or demands,

this teacher may feel rejected, unappreciated, and frustrated. This diminishes his/her 'commitment to all students. Fearful of being "different," this teacher is concerned with the expectations of colleagues and authorities.

The teacher at the **Conscientious stage** has a strong sense of accomplishment and achievement and is able to set and evaluate long-term goals. This teacher exhibits awareness of him/herself as separate from a group and can recognize multiple alternatives in problem-solving. However, this teacher's exaggerated sense of responsibility and perhaps over idealistic goals may result in frustration, emotional exhaustion, and diminished personal worth, when the teacher cannot solve all a student's problems.

The teacher at the **Autonomous stage** has developed an understanding and tolerance of conflicting needs and duties. This teacher has an awareness of the broader social context in which the school operates, and a realistic appraisal of his/her own limitations and responsibilities. Teachers at this stage value mutual interdependence with colleagues. This teacher recognizes the individual differences in students and becomes particularly aware of contingencies, exceptions, and psychological causes of behavior. This teacher is able to see multiple points of view and synthesize alternatives in order to prioritize choices for action.

The work in developmental theory has powerful implications for teacher education and staff development. Teachers at higher, more complex stages of human development appear as more effective in classrooms than their peers at lower stages. The first question in this area was obvious. If there was strong support for the idea that teachers at higher developmental levels are more effective in managing classrooms and meeting individual needs of students, than can we create an educational program designed to promote such development?

An initial group of studies took this point of view and attempted to design learning environments to promote teachers' stage of development as well as

professional skills. Studies in Developmental Education for teachers were designed to promote teacher ego, moral, and conceptual development and professional skills.

Translating Theory into Practice

My first Developmental Education project with teachers used assumptions from cognitive-developmental theory to define four focus points which seemed necessary for teacher development to occur: (1) opportunities for practical application of new learnings followed by examination and reflection on those experiences in seminars and conferences and through introspection: (2) chances to try out more complex roles and responsibilities with emphasis on learning to take the perspective of others; (3) ongoing. on-site supervision/advising/consulting among teachers and staff; and (4) provision for a supportive environment to deal with the times of cognitive conflict in the acquisition of new learning (Oja, 1980).

In general, the results of this Developmental Education project indicated that it is possible to design curriculum which will address teachers' personal growth in ego maturity as measured by the Loevinger Ego Development Test (Loevinger & Wessler, 1970), and promote moral reasoning as measured by the Rest Defining Issues Test (Rest, 1974), and cognitive complexity as measured by the Hunt Conceptual Level Test (Hunt, et al., 1973). Corresponding increases were noted in teachers' professional growth along the flexible teaching dimensions which include functioning as supervisor, advisor, counselor, group leader, and organizer of individual instruction.

In particular, in my first study, a team of three faculty and six doctoral students worked with experienced elementary and secondary teachers involved in an intensive developmental curriculum offered in a summer session and academic year staff development program. There were significant differences between an experimental group of 37 teachers (N = 37)and two control groups (N = 25, N=23) on the Defining Issues Test of Moral Development and the Conceptual Level Test of Cognitive

Complexity, and the Loevinger Test of Ego Development (for research results, see Oja, 1978 and Oja & Sprinthall, 1978; for specific curriculum design, see Oja, 1980).

The teachers in the experimental group significantly increased their ability to accurately identify and emphatically respond to human emotion (as measured by Reflection of Feeling scores). In addition, significant improvement was found in elementary teachers' ability to employ dimensions of teaching involving accepting and using students' ideas, asking questions, accepting feelings and praising or encouraging (measured by Flanders' Interaction Analysis of videotaped classes).

All teachers in the experimental group attempted to design and try out action research curriculum units in which they contracted for individualized instruction, taught interpersonal skills, and supervised peer counseling, peer teaching, or cross-age teaching in their own classes. In all units teachers were responsible for leading effective discussions to help students make sense of their new learnings. These mini-units characterize the prior research of the Sprinthall-Mosher Deliberate Psychological Education Model with children and adolescents with emphasizes students taking on responsible genuine roles in active learning situations with systematic reflection. The teachers kept written journals of their action research activities. The teachers' journals reflected their risk taking to learn the skills of a developmental educator, their hesitancy at first to open up with colleagues, their success and failure in applying the skills to the classroom. Equally important, the journals substantiated changes found in teachers' level of ego maturity, moral reasoning, and cognitive complexity; their increasing ability to reason more abstractly, be aware of alternatives, take multiple perspectives, and be more sensitive to the emotions of self and others.

Overall, the results of this Developmental Education study and others by Glassberg (see Glassberg & Sprinthall, 1980) and Bernier (see Sprinthall & Bernier, 1978) added support to the hypothesis that it is possible to directly intervene to promote higher stage growth in teachers' ego, moral, and cognitive development.

Continued Application of the Developmental Education Model

When I moved to New Hampshire in 1977, I had the opportunity to try out the Developmental Educational model with a large group of teachers all from the same school, where principal and teachers had already committed themselves to being involved in a school-wide change effort, a 12th cycle Teacher Corps project. The project director was interested in my pursuing an evaluation of teachers' stages of development in relation to one strand of the project which I organized and which became known as the Psychological Education strand.

I adapted the Developmental Education model with a group of 20 experienced teachers all from the same school in New England. This second study adhered to the three-phase developmental curriculum described in the earlier projects: (1) building supportive interpersonal relationships within small groups to facilitate developmental stage growth; (2) learning the more complex teaching skills of counseling, supervising, and individualizing instruction plus the theory of children's and adolescents' developmental stage growth; and (3) applying the skills and theory to classrooms using action research mini-units in peer counseling, supervising peer teaching, and individualized instruction through contracting. The results are presented briefly below.

The average pretest score on Loevinger's Ego Test was the Self-Aware ego level [1], the transition level between the Conformist and Conscientious stages. The average pretest score on the Hunt Conceptual Level Test indicated the group's ability

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[1] The ego pretest mean score for teachers in the earlier study was the Conscientious stage.

for self-delineation, awareness of alternatives, and awareness of emotions, which is categorized as moderately high cognitive complexity. The Rest pretest of Moral Judgment showed 42% "principled thinking" in responses to dilemma issues. (These pretest results from teachers in one school are similar to the pretest data in my previous study with 85 elementary and secondary teachers from a variety of schools.) Analysis of the posttest data showed a significant increase in moral judgment reasoning over the course of the project, from 42% to 52% principled reasoning. Corroborating data comes from behavioral analysis from videotapes, observations of classrooms, teachers' journals, questionnaires, and interviews. In case studies where individual teacher's growth in moral judgment was matched by increases in ego stage, that change was in the direction from Conformist to the Conscientious stage (see summaries in Oja, 1979, 1980a and 1980b).

It became clearer that change to the interpersonally-oriented Autonomous stage remains a major task. On-site work within one large junior high school in the second study reiterated to me the possibilities and the complexities in the teachers' developmental growth.

At the end of the second study I had two main concerns. One concern was the ever present reality of the institutional environment of the school and how that may limit the amount of developmental change possible for teachers in the school. The second concern was with the stability of overall ego development in adults, even while the underlying dimensions of moral judgment and conceptual level did show change.

I found that I had become intrigued with the longitudinal case study as a design methodology and the continued use of Loevinger's theory of ego development. I became interested in how ego development stage related to a teacher's reasons for participating in certain kinds of staff development activities and how individuals at different stages of development participated once involved. I used Loevinger's theory

of ego development to help me explain a number of questions relating to: (1) individual teacher's differentiated implementation of action research mini-units in peer teaching, individualizing instruction, and peer counseling, (2) teachers' interpersonal interactions in small group meetings with me and other teachers, and (3) the consistency or inconsistency between teachers' thinking and their actions. I wanted to continue work with a small group of teachers (who scored at different stages of development) as they actually applied problem solving strategies to the design of curriculum units. Also, close collaboration among a small group of teachers from one school would help me to more fully understand the effects of certain school settings and staff development programs on the possibilities for personal and professional growth of the teachers within the school.

Collaborative Action Research as Developmental Education

I became interested in the process of Collaborative Action Research as a Developmental Education intervention. If a group facilitator takes a developmental perspective on growth, a collaborative action research group of teachers can include the following essentials of a Developmental Education model: significant social role taking, a seminar approach with practicum experience, intense action and reflection, and support and challenge for individual development as well as school organizational development.

Action research is not new. There are many forms that have been used successfully by teachers and researchers in Europe and Australia. For a recent review see Oja and Smulyan (1989). Collaborative action research as a research methodology is just gaining respect in the United States at a time when there is a national call for universities and schools to collaborate in the structural reform of teacher education. Collaborative action research is important because of its focus on teacher involvement in defining and solving school problems, emphasis on

collaboration between school teachers and university researchers, and problem solving focus encouraging reflection on practice.

I discussed further the essential features of collaborative action research with teachers and the role of the developmental facilitator in Oja and Ham (1984) and Oja and Smulyan (1989). Here I will highlight just a few of the essential features of collaborative action research which relate to Developmental Education.

In Collaborative Action Research teams, teachers provide practical knowledge of the problem chosen for study. Researchers, as developmental facilitators, provide the team with the ability to organize data and approach the problem from multiple perspectives. Collaboration of teachers and researchers recognizes and utilizes the unique skills and insights provided by each participant. A "work with" rather than a "work on" posture is assumed. Consensus in decision making can encourage each participant to voice their perspective and attempt to understand and take the perspective of others.

Often a gap in development at the Conscientious stage is seen in one's ability for empathy, mutuality, and valuing the perspective of others who are different from oneself; these are all critical qualities which are needed for growth to the post-conventional Autonomous stage. This kind of gap is sometimes evident in university researchers' inability to value teachers' practical knowledge which is based in experience. This gap in development at the Conscientious stage is also evident in some teachers' unwillingness and inability to understand the differing perspectives of their colleagues in different subject departments in schools, or at different school levels.

Collaborative Action Research can be a developmental intervention for both school and university participants. It proposes alternatives in the conventional roles of teachers and university researchers. All are asked to take on new roles and provided the support to do so. Teachers learn and use research skills reflecting on practice and

experiment with a range of teaching and/or supervisory behaviors. University researchers become sensitive to the complexities of classrooms and/or school leadership functions while they learn how to collaborate more effectively.

A Collaborative Action Research team of school practitioners and university researchers is sensitive to the school in which it takes place. Participants can work together to understand the school and its effects on teachers' development, the limitations as well as opportunities for personal and professional growth. Collaborative action research discussions often center on the real life dilemmas current in the schools. There is a moral-ethical dimension which can produce challenge and conflict for participants to think in more encompassing ways.

With this overview of the process of collaborative action research as a Developmental Education strategy, I will describe two recent studies focusing on staff development for teachers using the knowledge base provided in cognitive-developmental theories.

Action Research on Change in Schools

In the first, called Action Research on Change in Schools (ARCS), I worked with Gerald Pine and Lisa Smulyan in a case study of school-based collaborative research teams (Oja & Pine, 1983, 1987). In a book just completed (Oja & Smulyan, 1989) we suggest the functional role of cognitive-developmental stage theory in relation to teacher thinking and behavior in the collaborative action research process.

In this case study two groups of five teachers were chosen from volunteers in two middle/junior high schools who wished to become involved in a collaborative action research project in their school. The five participants in each school were chosen so that each teacher represented one stage of ego development, e.g. the Conformist stage, the Self-Aware transition level, the Conscientious stage, and the Individualistic transition level. No teachers in the pool of about fifty volunteers scored at the Autonomous stage. This case study purposefully chose teachers to span a

range of scores, and then carefully documented each teacher's reactions, attitudes, and behaviours in the collaborative research process.

I found Robert Selman's interpersonal reasoning theory (Selman, 1980) very helpful in the analysis of teachers' conceptions of the group process, organization, and group leadership in collaborative action research teams. Also, his suggestion of analysis of individual's behavior into minimal, operating, and capability levels was crucial for investigating individual teachers' reasoning and patterns of behavior in the team weekly meetings over the two years of the project.

The findings of the case studies of five teachers on the ARCS team, who were representative of different stages of development, suggest that the same basic structures which shape a teacher's meanings and attitudes toward change also operate in the person's conceptions and behavior in terms of group dynamics, the research process, team leadership, principal in relation to the team, and the goals and outcomes of the research and these are related to the teacher's developmental stage.

In particular, at the modal conventional stages of development, the **Conformist** and **Self-Aware** ego stages, we have documented teachers' tendency to conform to external rather than self-evaluated standards and to have little self-awareness and little appreciation of multiple possibilities in problem-solving situations and the resulting effects on the collaborative action research process.

As teachers shift to the **Conscientious** stage, we have documented their tendency toward self-evaluated standards, intense sense of responsibility, focus on achievement, and deepening recognition of individual differences in the attitudes, interests, and abilities of others on the action research team. At this stage we have also documented little toleration for paradox, contradictions, and ambiguities.

At the transition to the post-conventional stages of development, at the **Individualistic** stage for instance, we documented the teacher's ability to assume multiple perspectives, utilize a wider variety of coping behaviors in response to school

and team pressures, employ a broader repertoire of group process and change strategies, and be highly effective in many collaborative action research decisions because of the ability to be self-reflective, self-evaluative, and interpersonally sensitive.

Not only did this study show how teachers' developmental stages affect their interactions in the school setting and the collaborative research team but it also showed the operation of the school system through the teachers' eyes.

In relation to the school organization, we have documented how the collaborative research team context became a temporary system in the school that differed from the permanent system of the school context in a number of significant ways which provided facilitative conditions for personal and professional development of team members. For example, the action research team context was characterized by the following conditions: non-hierarchial, self-managed; norms of collegiality and experimentation; power diffused among the team: teachers develop their own tasks and flexibly take on a variety of roles and responsibilities; a setting of pause, reflective thinking, cognitive expansion; participatory and collaboratively shared decision-making (Oja & Pine, 1987).

I have found the strength of the developmental stage approach is in a model for understanding the organization, principles, and underlying strategies and changes in individuals' thinking and attitudes. The ARCS project provided a real glimpse of teachers' thinking and interacting, from the first three months' transcript analysis, to the observation of initial patterns, and throughout the two year period of documented weekly meetings. More recently, in re-analyzing the data, I have looked at the ways in which teachers at different developmental stages were consistent or inconsistent in their thinking, to what extent the situational factors in the team or school caused variability in thinking and acting, and to what extent teachers at different stages affected each other's development (Oja, 1988a and Oja & Smulyan, 1989). I have

also been able to utilize the more recent developmental theories of Carol Gilligan (1982) and Nona Lyons (1984) in a morality of care and the work on Women's Ways of Knowing (1986) by Mary Belenky, Blythe Clinchy, Nancy Goldberger, and Jill Tarule to understand some of the teacher's individual areas of development during the collaborative research process.

The idea of teacher researcher is new to many schools; it may be a stimulating experience for teachers and, at times, overwhelming. A developmental perspective can help a facilitator to provide appropriate supports needed for individual growth. Collaborative action research is gaining more attention. By observing the natural process in the ARCS study, we were more able to understand how this concept could be best put into practice with the goal of teacher personal and professional growth.

Collaborative Supervision .

In a more recent project, which was just completed, collaborative action research was used as a process in which elementary school principals, cooperating teachers, and university supervisors could investigate a common issue of importance, supervision of teaching interns in their schools. School and university participants met in collaborative supervisory teams to investigate theories of development and alternative models of supervision. The goal was for participants to become more effective supervisors by learning to match appropriate supervision strategies to the cognitive-developmental needs and stages of the supervisees. The overall objective was personal growth of teachers in ego maturity, moral development, and conceptual complexity and professional growth in supervision skills. ·

Full year interns were placed in clusters of six to a school. School-based collaborative supervisory teams consisted of six cooperating teachers, the principal, and a university supervisor who met at least once a month. The knowledge base in supervision and developmental theory was neither prescribed nor interpreted in a limited fashion. Instead, each team negotiated the scope of the two areas and formed

initial boundaries for the topics, concerns and issues to be further investigated. All participants were active in the examination, reflection and evaluation of the knowledge base and of their own practice, so that both informed each other. They learned about developmental theory, investigated alternative supervision strategies, and attempted to vary their supervision practices according to the capabilities, variety, and flexibility observed in their student teaching interns. Cooperating teachers applied their knowledge of the intern's stage of development to select appropriate supervision strategies which supported the intern in new learning experiences and challenged the intern's development to new levels. Participants reflected on their experiences through video tapes, journals, supervisory logs, interviews, consultations, and collaborative supervisory team meetings. Practical and theoretical knowledge interacted continuously as participants worked through the collaborative supervisory process and were able to further analyze, understand, and evaluate their supervisory situations. Aspects of this Developmental Education program in collaborative supervision are described in Oja (1988), Oja and Ham (1988a and 1988b) and Oja, Dupuis and Bonin (1988).

The Collaborative Supervision program attracted and sustained involvement of higher stage participants. This finding is important. Twenty-four of twenty-eight school participants scored at Conscientious, Individualistic, and Autonomous stages of development, with two-thirds of them scoring at post-conventional stages. Sixty-one percent (61%) scored at moderately high and high levels of moral judgement, and ninety percent (90%) scored at moderately high and high conceptual levels. The average pretest on Loevinger's Ego Test was the post-conventional Individualistic ego level, the transition between the Conscientious and Autonomous stages. The average pretest score on the Hunt Conceptual Level Test was 2.28 indicating the ability for using abstract, internal principles and multiple viewpoints, which is categorized as high conceptual complexity. The Rest pretest of Moral Judgment

showed a mean of 60% "principled thinking" in responses to dilemma issues. These pretest results from teachers in the Collaborative Supervision program are much higher compared to pretest data in the first two Developmental Education studies reported in this paper.

It is unlikely that teachers functioning at fairly high developmental stages will exhibit vertical stage change in just two years, so it is no surprise that no significant vertical change in developmental stage scores was found. Loevinger (1976) claims that at least five years is needed for stage change. We believe that this is true particularly at the higher post-conventional stages. Our prior work (Oja, 1978; Oja and Pine, 1983) indicated vertical stage change occurred within the conventional scorers, with the higher stage teachers experiencing horizontal growth and refinements at the same stage but no significant vertical change in stage scores within the two year projects.

What is important about the Collaborative Supervision project is that teachers who self-selected to be involved in Collaborative Supervision and who sustained their involvement in the program were teachers at higher stages of development. The benefits and outcomes experienced by these teachers went beyond their developing supervision skills. 100% of project participants indicated collaboration with the university had improved, and 87% indicated that collaboration among teachers within their school had improved. 100% reported the discovery of new ways of looking at people, in particular, at different developmental stages persons have different strengths and weaknesses, capacities and limitations. Participants experienced an increased sense of efficacy. Over 75% reported significant changes in their school's recruitment, placement, supervision, and evaluation of interns. Participants perceived benefits from collaborative supervision in terms of the opportunities for sharing and support among colleagues. 80% appreciated the sense of common purpose and common challenges, 95% reported the feeling of mutual support, and 85% liked the

open sharing in supervisory team meetings. We observed an increased sense of professionalism. Supervisory team discussions often focused on larger school context issues and concerns beyond the specific supervision of interns but which affect the climate of the schools. In this prog am, the context of the collaborative supervisory teams had supported and challenged higher stage teachers who wished to take on more supervisory responsibilities with interns.

Conclusion

The relationship of developmental theories to the professional development of teachers remains a compelling framework for study. (1) The process through which teachers move from the less complex to the more complex in a variety of developmental domains and (2) the contexts which provide for and encourage that developmental process deserve more attention in staff development planning. What is important about the knowledge base in developmental theories lies in its invitation to listen to teachers' voices, beliefs, and perspectives; to use developmental theory in interactions with different individuals; and, most important, to urge teachers to become engaged in their own development. Knowledge of developmental theory helps one to recognize and deal more effectively with individual differences. The value in knowing the progressions in developmental theory and these approximate sets of individual differences or world-views can help one to be less dogmatic about any one solution for everybody. In considering staff development, schools may offer programs, projects, and activities which differentially attract teachers at different stages of development. In suggesting such a plan, one may consider how a particular program and process supports and challenges teacher development at different stages. Appendix B suggests an initial matching.

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APPENDIX A

DEVELOPMENTAL THEORIES

Table 6   Comparison of Adult Development Theories

	EGO DEVELOPMENT	MORAL/ETHICAL DEVELOPMENT		COGNITIVE/CONCEPTUAL DEVELOPMENT		INTERPERSONAL DEVELOPMENT
	'Sets of Perceptions Toward Oneself and Others'	'Attitudes of Reasoning About Moral and Social Dilemmas'		'Attitudes Towards Learning and Preferred Style of Learning'		'Ability to take the Perspective of Others'
		Morality of justice	Morality of response and care	Intellectual development	Women's ways of knowing	Group Relations
Stages of Adult Development	Loevinger (1970, 1976) Kegan (1982)	Kohlberg (1981, 1984) Rest (1986)	Gilligan (1982) Noddings (1984) Lyons (1983)	Piaget (1972) Perry (1970) Hunt (1975)	Belenky, Clinchy, Goldberger and Tarule (1986)	Selman (1979, 1980)
Precon- ventional	Impulsive Self-protective •Imperial	Punishment- obedience Instrumental egoism and exchange	Primary concern for one's own survival in the face of power- lessness	Concrete operations Dualism	Silence •Denial of self Received knowledge •Dualistic thinking •Powerless	Unilateral relations Bilateral partnerships •Exchange of favors

Conventional	Conformist •Interpersonal Self Aware transition Conscientious •Goal oriented •Institutional	Approval oriented Authority, role, and social order orientation	Goodness in caring for others Self sacrifice the highest virtue	Multiplism Concrete/formal transition Mutual dependence Relativism	Subjective knowledge •Self awareness Procedural knowledge •Complex ways of understanding	Homogeneous relations • Converging interests •Common values •Pressure toward uniformity
Post-conventional	Individualistic Autonomous •Self-defining •Interindividual Integrated	Social contract Utilitarian legalistic orientation Universal ethical principle orientation	Recognition of self as a legitimate object of care Development of an ethic of care	Full formal operations Reflective judgment (Kitchener and King, 1979) Commitment in Relativism Dialectical thinking (Basseches, 1984) Post-formal problem finding (Arlin, 1975) - Reflection on action (Schon, 1983)	Constructed knowledge •Speaking and listening used equally in active dialogue with others	Pluralistic relations •Differentiated values •Interdependent systems

Source: Oja, S.N. and Smulyan, L. (1989)

APPENDIX B

STAFF DEVELOPMENT OPTIONS FOR TEACHER DEVELOPMENT

TEACHER DEVELOPMENTAL STAGE (Loevinger)	TEACHER STAGE CHARACTERISTICS	APPROPRIATE SUPPORTS	APPROPRIATE CHALLENGES
SELF-PROTECTIVE	Fearful; rigid; dependent; dis- trustful; mani- pulative; and authoritarian	• Demonstrate trust; mutual respect • Set short term goals • Interact often • Model/guide openness	• Role playing • Journals • Values activities • Constructive feedback • Social activities
CONFORMIST	Rule-oriented; conventional; concern with status, social acceptance; and belonging	• Focus observ- ations • Share many options • Encourage visitations and workshop attendance • Interact socially	• Reflection exercises • Role taking • Assertivenes training • Problem solving pro- jects • Graduate courses
CONSCIENTIOUS	Responsible; goal-oriented; self-critical; efficient; inner standards	• Facilitate sharing of district resources • Structure new roles • Videotape performance • Model empathic behavior	• Peer super- vision • Conflict resolution training • Intern/Aide supervision • Action research projects • Curriculum development

TEACHER DEVELOPMENTAL STAGE (Loevinger)	TEACHER STAGE CHARACTERISTICS	APPROPRIATE SUPPORTS	APPROPRIATE CHALLENGES
AUTONOMOUS	Flexible; concern with self-fulfillment; creative; interdependent; deals with complexity; sees/uses many options and alternatives;	• Provide many options for growth • Develop flex time options • Facilitate networking • Encourage self-growth • Differentiate roles • Share power	• Mentoring • Assuming leadership/power roles • Create new programs and policies • Group supervision • Becoming a change agent

From: Ham, M.C. and Oja, S.N.