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CONSTRUCTIVIST REMEDIATION: CORRECTION IN CONTEXT

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Constructivism refers to a collection of educational practices that are student-focused, meaning-based, process-oriented, interactive, and responsive to student personal interests and needs. In contrast, instructionism refers to a collection of educational practices that are teacher-focused, skill-based, product-oriented, non-interactive, and highly prescribed. In the context of reading instruction, constructivist theoretical assumptions are reflected in whole language learning; instructionist theoretical assumptions are manifest in remedial reading. Constructivist remediation is teacher-controlled and skill-directed instruction delivered in a context that is personally meaningful to students. Both constructivist and instructionist assumptions are acknowledged and combined to provide the foundation upon which specific skill deficits are identified and corrected in meaningful context. Constructivist remediation is conceptualized and presented in terms of seven critical elements that are integrated and interdependent. Core skills remediation in 1) phonological processing, 2) sight word vocabulary, and 3) reading comprehension, based upon 4) authentic individual student assessment, are taught in instructional contexts made meaningful by 5) whole pieces of literature, 6) integration of literacy and language development, and 7) enhanced student motivation through self-selected, functional learning activities.

The demand for literacy is unprecedented (Snow, Burns, & Griffin, 1998). *More than any other area, school success is dependent on knowing how to read and understanding what is read* (Vaughn, Levy, Coleman, & Bos, 2002, p. 2). Unfortunately, many children struggle to learn to read. Palmaffy (1997) suggested that approximately 50% of children easily learn to read, 25% experience some degree of difficulty, and 25% experience serious difficulty learning to read. A wide variety of learner characteristics (e.g., intelligence, gender) and familial attributes (e.g., mother's level of education) has been implicated in children's early success or failure in learning to read (Guthrie, Schafer, &

Huang, 2001). While such findings contribute to our understanding of the complexity of learning to read and may provide direction for preventive practice, the immediate challenge for teachers is providing instruction that maximizes student learning outcomes. *One of the most daunting and clearly defined current challenges for both researchers and practicing educators is to develop, disseminate, and implement methods for teaching reading that will help all children acquire adequate reading skills* (Torgesen et al., 2001, p. 33).

Currently, there are two seemingly polarized theoretical orientations to teaching reading -- constructivism and instructionism (Palmaffy, 1997; Shafer, 2001). *Constructivism* refers to a collection of educational practices that are student-focused, meaning-based, process-oriented, interactive, and responsive to student personal interests and needs (Honebein, 1996). In contrast, *instructionism* refers to a collection of educational practices that are teacher-focused, skill-based, product-oriented, non-interactive, and highly prescribed (Jonassen, 1996). In the context of reading instruction, constructivist theoretical assumptions are reflected in whole language learning (Goodman, 1998); instructionist theoretical assumptions are manifest in remedial reading (Lovett, Lacerenza, & Borden, 2000; Kameenui & Carnine, 1998). While the relative merits and effectiveness of these two polarized instructional orientations are hotly debated (Baines & Stanley, 2000; Jeynes & Littell, 2000; Taylor, 1998), there is increasing consensus that the two approaches are compatible and, in fact, that a balanced instructional paradigm will ultimately provide comprehensive and effective instructional practices for struggling readers (Zemelman, Daniels, & Bizar, 1999). To appreciate the compatibility of constructivist and instructionist approaches to teaching reading, review of theoretical assumptions and corresponding curricular praxis is necessary.

Constructivist Theory and Constructivist Classroom Practice

In contemporary educational contexts, *constructivism* is the term used to describe student-centered, process-driven, loosely structured, and highly interactive instructional practices (Ernest, 1995; Prawat, 1996; von Glasersfeld, 1996). Constructivism defines learning as a process of active knowledge construction and not as passive knowledge absorption (Freiberg, 1999; Reigeluth, 1999; von Glasersfeld, 1995). Rather than absorbing information and ideas presented by teachers, or internalizing skills through rote memorization, constructivism posits that students construct or create their own knowledge (Phillips, 1995). Students assimilate new information into pre-existing mental structures, and modify personal interpretation in light of new information and experience (Jonassen, Davidson, Collins, Campbell, & Haag, 1995).

For constructivists, the emphasis is on learning processes as opposed to learning products. The process by which a student determines a particular answer is more important than retrieval of objective solutions. Student error is viewed as a mechanism of gaining insight into how students organize their experiential world (Smith & Elley, 1995). In fact, the term *error* is largely incompatible with the constructivist perspective because such terminology implies that individual interpretations can be deemed correct or incorrect (Fosnot, 1996). Thus the notion of multiplicity is central to constructivism;

there are multiple representations of reality, none of which is automatically nor necessarily superior or inferior to the others (von Glasersfeld, 1996).

Constructivism has enjoyed an element of educational popularity in recent years (Martinez, Sauleda, & Huber, 2001; Phillips, 1995; Reigeluth, 1999). Although various interpretations and applications exist, constructivist instruction and constructivist classrooms are characterized by authenticity and by a focus on students (Jonassen et al., 1995). Constructivist classrooms create relevant environments in which learning is functional (Honebein, 1996). Instructional focus is on satisfying actual student needs and solving real problems. The teacher is conceptualized as a facilitator of student understanding as opposed to a transmitter of knowledge. The role of the teacher is not to dispense knowledge but to provide students with opportunities and incentives to make meaning (von Glasersfeld, 1996). Mayer (1996) described the teacher as *guide* and the learner as *sense maker*. While there are many instructional practices that illustrate constructivist theoretical assumptions, a particularly salient example is whole language learning.

Constructivism Applied: Whole Language Learning

Whole language learning represents a constructivist philosophy of curriculum manifest in literacy instruction (Ediger, 2001; Fink, 1996). The requirement of personal meaning in literacy development is basic to whole language philosophy (Smith & Elley, 1995). Rather than emphasize specific reading skills, whole language emphasizes the construction of personal meaning and focuses on reading comprehension (Boran & Comber, 2001). In deriving meaning, children attend to the wholeness of words, sentences, paragraphs, and books because meaning is maximized in context (Krashen, 1999). Thus, instruction does not fracture content into subskills but, rather, presents material in whole forms (McIntyre & Pressley, 1996). Whole language advocates stress the importance of high quality literature in the development of literacy because meaning is most apparent in extensive, complex, and complete applications of text (Goodman, 1998).

Whole language instruction rests on the assumption that language and literacy are integrated developmental phenomena (Krashen, 2002). Both oral and written language reflect parallel underlying mechanisms; processing oral symbols is conceptually equivalent to processing written symbols (Goodman, 1998). Language, both oral and written, reflects communication which is, by definition, the transmission of meaning (Smith & Elley, 1995). Thus, children learn all forms of language in contexts that are meaningful, necessary, and personally useful (McIntyre & Pressley, 1996). Whole language teachers support student effort to communicate as opposed to directing student language usage (Boran & Comber, 2001). With each language encounter, whether oral or written, the child constructs knowledge about the world, the function of symbols, and communication strategies. Whole language teachers provoke, elicit, and demonstrate communication exchanges within and beyond the classroom (Fisher, 1991). Whole language curriculum immerses students in situations requiring authentic oral and written language use (Goodman, 1986).

From this perspective, error is inherent in the process of learning oral and written language (McIntyre & Pressley, 1996). Teachers who endorse whole language encourage the process of language acquisition by finding meaning in children's oral and written attempts to communicate. What instructionists define as error in need of correction (Engelmann, Hanner, & Johnson, 1989), constructivists define as spelling invention intended to communicate (Boran & Comber, 2001). Rather than correcting and prescribing exactness, inventive and explorative use of written language is celebrated for its contribution to communication and its attempt to construct meaning (Fink, 1996). With the support of teachers, students' spoken and written experiments ultimately assist in locating and learning conventional language usage.

In addition to emphasizing whole pieces of literature and the integration of language and literacy experiences, whole language classrooms provide student choice in functional learning activities (Krashen, 2002). Whole language teachers encourage children to use language in functional and meaningful ways such as daily journals, letter writing, and writing workshops. Prescribed curricula and prescribed instruction are perceived as dehumanizing because power is shifted from people to material (Goodman, 1998). Thus, whole language learning provides for student choice in selection of learning activities. This may be the reason that whole language classrooms are characterized by high levels of student engagement and motivation (Fisher, 1991). In contrast to the constructivist assumptions upon which whole language is based are instructionist assumptions and instructionist classroom practice.

Instructionist Theory and Instructionist Classroom Practice

In contemporary educational contexts, *instructionism* is the term used to describe teacher-centered, outcome-driven, highly structured, and non-interactive instructional practices (DynaGloss, 1998). Instructionism is based on an acquisition metaphor (i.e., learning is a matter of acquiring information) and a transmission model (Martinez et al., 2001). The teacher instructs by transmitting facts to passively receptive students (Shabo, 1997). As the primary source of information for students, a good teacher organizes and presents curriculum with maximum efficacy (Hay, 1993). Instructionism includes teaching practices such as lecturing, telling, showing, and explaining. It is characterized by whole-group instruction, student inactivity, rewarding silence in the classroom, worksheet activities, textbook learning, rote memorization, and reliance on standardized testing (Lefrancois, 1999).

Since the teacher is the primary mechanism of student learning, teacher behavior is the target of attention in evaluating learner outcomes. From this perspective, failure to learn is most aptly described as failure to teach. Instructionists focus on detailed lesson preparation, on teacher organization and management, and on teacher communication and effectiveness (Adams & Engelmann, 1996; Kameenui & Carnine, 1998; Todd & Morris, 1995). Instructionism is exemplified by systematic teaching, explicit teaching, direct teaching, active teaching (Schug, Tarver, & Western, 2001), and all educational practices that emphasize the teacher as opposed to the student (Jonassen, 1996).

In contrast to constructionist focus on learning, instructionism is preoccupied with teaching. The most important learner characteristic centers on what needs to be taught; learner knowledge and skill deficits determine teacher instructional behavior. Instructionism is summarized as a systematic set of procedures for focusing teacher effort on: 1) determining student learning requirements, 2) enhancing the efficacy of the learning environment, and 3) monitoring student curricular progress so that instruction can be improved and corresponding learning outcomes maximized (Schweinhart & Weikart, 1997). While there are many educational applications of instructionist theoretical assumptions, a particularly notable example is remedial reading.

Instructionism Applied: Remedial Reading

In educational contexts, remediation refers to specific strategies directed toward improving student learning outcomes (Sands, Kozleski, & French, 2000). It is a generic term, not unlike rehabilitation, in which student deficits are identified and then taught and drilled until mastery is achieved (Moses, 2001). Although conceptual disagreement is apparent (Hallahan, Kauffman, & Lloyd, 1999), remediation has many related, perhaps synonymous, educational practices. Compensatory education, direct instruction, corrective teaching, adaptive instruction, diagnostic-prescriptive teaching, and individualized instruction are all curricular methods that attempt to improve student academic functioning, particularly in reading and to a lesser extent in mathematics, with structured methods that focus on intense instruction of identified student academic and cognitive deficits (Choate, 1993; Lovett et al., 2000; Stein, Carnine, & Dixon, 1998). Because remedial reading requires intense and highly focused teacher effort, it is not universally applied but, rather, is directed specifically toward struggling readers (Johnson, 1998).

Advocates of remedial reading maintain that specific skills are prerequisite to school learning (Hallahan et al., 1999). The goal of remedial instruction is to identify and efficiently teach these underlying deficiencies. For example, remedial specialists endorse the teaching of alphabet sounds as an essential prerequisite literacy skill. The flavour of research that drives such remedial instruction focuses on, among other skills, phonological awareness and claims that the absence of *conscious access to the phonemic level of the speech stream, and some ability to manipulate cognitively representations at this level* (Stanovich, 1986, p. 362) cause reading difficulties. Remedial teachers assume that prerequisite processing skills can be enhanced through dedicated skills programs and that such programming improves reading competencies (Byrne, 1996; Ehri, 1998; Share, 1995; Stickland, 1998).

Specific programs, such as Corrective Reading (Engelmann et al., 1989), illustrate the fundamental principles of remedial instruction. Corrective Reading provides remediation for a range of prerequisite skill deficiencies. The decoding lessons provide scripted, incremental instruction for prerequisite skills such as sound-symbol correspondence, rhyming words, pronunciation, application of phonetics, word discrimination, letter combinations, vocabulary, and affixes. The comprehension sections teach skills such as analogies, inferences, sequencing, and organizing. In a highly prescribed format, all skills

are taught through teacher-directed instruction based on cumulative skills acquisition. The program prescribes both teacher and student behavior (Smart, Sanson, & Prior, 1996) and, in this regard, exemplifies instructionism.

Instructionist approaches such as remediation have been described as *ugly but effective* (Schug et al., 2001, p. 4). While not above controversy (Baines & Stanley, 2000), constructivist educational approaches are attractive to teachers (Goodman, 1998; Martinez et al., 2001). Teachers, as well as students, are drawn to instructional approaches that focus on active student involvement and meaningful learning (Krashen, 1999; McIntyre & Pressley, 1996). Students in whole language classrooms are described as engaged, involved, and highly motivated (Fisher, 1991; Honebein, 1996). And yet, the evaluative outcome research clearly establishes the benefits of instructionism (Carlson & Francis, 2002; Herman et al., 1999; Snow et al., 1998), particularly for disadvantaged readers (Kaiser, Palumbo, Bialozor, & McLaughlin, 1989; O'Brien & Ware, 2002; Swanson, 2001; Torgesen et al., 2001). Constructivist remediation is presented as a potentially effective approach to teaching struggling readers. Constructivist remediation combines the beauty and core value of constructivism with the targeted efficiency of instructionism.

Constructivist Remediation: Correction in Context

Constructivist remediation, as is the case with all remediation, is targeted instruction, both in terms of specific skills and in terms of specific learners. With regard to specific learners, constructivist remediation is most efficiently applied to those students who are struggling in the early stages of reading acquisition. Constructivist remediation may occur in remedial and resource room contexts or in inclusive educational settings. Regardless of context, as is the case with all remedial instruction, constructivist remediation is best suited to individual and small group instruction, which is viable in both special and inclusive educational settings. *It is important to recognize that students who are the lowest readers make few, if any, gains unless provided intense instruction* (Vaughn et al., 2002, p. 11).

Constructivist remediation is, essentially, teacher-controlled and skill-directed instruction delivered in a context that is personally meaningful to students. Both constructivist and instructionist assumptions are acknowledged and combined to provide the foundation upon which specific skills deficits are identified and corrected in meaningful context. Student interest and motivation cannot be sacrificed; such sacrifice ultimately sabotages learning. At the same time, struggling readers have no instructional time to waste (Vaughn et al., 2002). It is the teacher who creates learning opportunities, provides scaffolding, directs attention, controls behavior, and manages the learning environment. With *the right instructional conditions, it is possible to produce very large effects on the reading skills even of children who have experienced several years of reading failure as a result of severe reading disabilities* (Torgesen et al., 2001 p. 34).

Constructivist remediation is conceptualized and presented in terms of seven critical elements that are integrated and interdependent. Core skills remediation in

1) phonological processing, 2) sight word vocabulary, and 3) reading comprehension, based upon 4) authentic individual student assessment, are taught in instructional contexts made meaningful by 5) whole pieces of literature, 6) integration of literacy and language development, and 7) enhanced student motivation through self-selected, functional learning activities.

Phonological Processing Remediation

The ability to recognize, discriminate, understand, and cognitively manipulate auditory (i.e., sounds) and visual (i.e., letters) symbols is collectively referred to as phonological processing and includes all levels of alphabet knowledge and sound-symbol correspondence skills (Share, 1995). Struggling readers require systematic and intense instruction in a variety of phonological processing skills such as phonological and orthographic awareness (Hoover & Fabian, 2000). Phonological awareness is the ability to understanding that speech is composed of a sequence of sounds or phonemes that combine to form words. Orthographic awareness refers to recognition and discrimination of written alphabet letters and understanding that these letters represent sounds that fit together to create written words (Wolf, Miller, & Donnelly, 2000). Struggling readers demonstrate numerous processing deficits including deficits in phonological and orthographic awareness (Allor, 2002; Lovett et al., 2000; Vaughn et al., 2002). Constructivist remediation targets processing deficiencies including sound-symbol correspondence. Such instruction is generically referred to as phonics teaching (Stickland, 1998).

Krashen (2002) argues that *extensive phonics teaching is a hopeless endeavour* (p. 33). Many phonics rules apply in only some cases and excessive reliance on phonics may actually serve to confusion struggling readers. For example, the silent e rule applies in approximately 75% of the cases (Johnson, 2001). And yet, there are a number of key phonics concepts that are critical to word recognition (e.g., most common and consistent consonant sounds, diagraphs, consonant blends, and vowel combinations). Smith (1994) suggested that a few straightforward rules of phonics are useful in rendering text comprehensible but claimed that most phonics is the result of reading not the cause. Ediger (2001) recommends phonics instruction as needed by specific readers with specific pieces of literature and emphasizing that phonics is a means to comprehension of text. Anderson, Hiebert, Scott, and Wilkinson (1985) claimed that:

> … *phonics instruction should aim to teaching only the most important and regular letter-to-sound relationships … once the basic relationships have been taught, the best way to get children to refine and extend their knowledge of letter-sound correspondence is through repeated opportunities to read* (p. 38).

Teaching essential and consistent phonics principles is central to constructivist remediation. Phonological processing skills are taught in context, in response to specific student deficits and reading needs, in the context of whole pieces of literature, and with an emphasis on functionality. *It is not a question of whether phonics or comprehension is more important, but recognizing that they are mutually reinforcing within the overall process of making meaning with text* (Asselin, 2001, p. 57). Phonics instruction begins

with awareness of functions, conventions and forms of print, and developed in terms of accuracy and automaticity (Wolf et al., 2000). Skill-oriented mini-lessons are embedded in the fabric of constructivist remediation. Such instruction is *complicated and coherent, as well as tailored to the needs of individual students* (Pressley, Roehrig, Bogner, Raphael, & Dolezal, 2002, p. 2).

Sight Word Vocabulary Development

Sight word vocabulary refers to words that are practiced, traditionally in isolation from text, until they can be instantly recognized. Sight word development overlaps, in some respects, with phonological processing. Phonics skills often provide clues to sight word pronunciation, although the goal is spontaneous recitation from memory. Sight word mastery provides children with points for comparison and analogies for decoding unfamiliar words (Lovett et al., 2000). Given that the *most common type of reading problem for students with reading disabilities, or dyslexia, is their inability to accurately and fluently identify printed words* (Allor, 2002, p. 47), sight word instruction is an essential element of constructivist remediation.

Sight word vocabulary has two constructivist remedial considerations; 1) identification of meaningful sight words and 2) functional learning activities. Meaningful sight words are identified in the context of children's literacy needs. The remedial teacher guides students to identify words that frequently appear on their personal lists of problematic words. These are words that are relevant and necessary to a specific learner and that can be practiced from a perspective of personal utility. Generic word lists are also available that capture key orthographic patterns and that are useful in combining phonics and sight word vocabulary instruction (Gaskins, Gaskins, & Gaskins, 1992). Personal and generic word lists are appropriate instructional targets during constructivist remedial of sight word vocabulary.

During constructivist remediation, children receive direct instruction and embedded practice with both personal and generic sight word vocabulary lists. Sight words are practiced using instructional activities such as drill with index cards on which words are printed, visual cuing when practicing words, image-word connections, orthographic sorting games, and playing cards with high-frequency words and word patterns (Wolf et al., 2000). In some cases, sight word practice is provided individually while, in other cases, cumulative lists are reviewed by groups of students. When student writing is published or shared, core sight word relevance is generalized across readers and writers. With regard to struggling readers, direct instruction in sight word vocabulary produces significant reading gains (Torgesen et al., 2001; Vaughn et al., 2002).

Reading Comprehension Skills

During constructivist remediation, reading comprehension skills are taught in the context of meaningful literature (Guthrie et al., 2001). As students read, the remedial teacher directs the reader to establish connections between what is known and what is encountered in the text. Oral discussion provides definitions and activates background knowledge. Students are explicitly taught to paraphrase, verify understanding of read

text, and re-read when meaning disintegrates. The remedial teacher questions the reader in terms of what is important and encourages inference, elaboration, synthesis of information read, and predicting outcomes. The remedial teacher questions the student during reading and encourages the student to seek clarification when confused, construct mental images representing ideas in the text, and summarize what has been read (Goldberg, 1992). Effective reading comprehension remediation begins with extensive teacher explanation and modeling of strategies, followed by teacher-scaffolded strategy use, and culminating in student self-regulated comprehension strategy application (Pressley et al., 2002).

Explicit and direct instruction in reading comprehension strategies is necessary and effective for struggling readers (Vaughn et al., 2002). Comprehension is facilitated by text enhancements such as illustrations, concept maps, diagrams, displays, semantic feature analysis charts, and mnemonic pictures which are developed by both teachers and students (Mastropieri & Scruggs, 2000). Remedial teachers instruct students to study story titles, examine pages for comprehension clues, look for critical words, and describe the setting. Remediation of reading comprehension promotes self-generated questions for identifying the main idea, the purpose of reading, the intentions of characters, and the author's intentions (Gersten, Fuchs, Williams, & Baker, 2001). Explicit instruction is more effective than implicit instruction in facilitating the reading comprehension of struggling readers (Adams & Engelmann, 1996; Rabren, Darch, & Eaves, 1999). Such explicit instruction is embedded in meaningful literacy experiences and targets communication.

Authentic Individual Student Assessment

Constructivist remediation, as is the case with all remediation, is based on assessment of student skill deficiencies (Hallahan et al., 1999). With regard to detailed instructional planning, because the emphasis is on individual meaning and personal choice, constructivist remediation reflects less formal, but more authentic, assessment of student skill deficits. Informal teacher assessment of student reading has predictive and practical utility (Hecht & Greenfield, 2001). Indeed, there is growing dissatisfaction with standardized assessment instruments that fail to provide flexible and useful information upon which individualized instruction is based (Stanford & Siders, 2001).

Authentic reading assessment involves evaluation of skills and strategies in a range of reading contexts rather than examination of isolated, decontextualized skills (Fisher, 1991). By observing students in a variety of reading situations, remedial teachers determine the repertoire of skills students have at their disposal and how such skills are utilized during the reading process. As part of the assessment-instruction cycle, early reading abilities such as book awareness, concepts of print, understanding stories, phonemic awareness, high frequency sight word recognition, and sound-symbol correspondence are observed and evaluated as children engage in meaningful and self-selected literacy activities (Valencia, 1997).

Checklists and rating scales provide remedial teachers with access to authentic individual

assessment (Stanford & Siders, 2001). As students engage in literacy activities, remedial teachers note and record specific deficits in core skill acquisition such as those associated with phonological processing, sight word vocabulary, and reading comprehension. Development and implementation of both generic and specific informal measures ensure that remedial instruction is specifically targeted at individual student needs. For example, in the case of reading comprehension skill acquisition, a rating scale may indicate the extend to which the student recalls important information, draws inferences, presents the main idea, and constructs a personal response related to individual experiential background. In the case of phonological processing, a checklist may indicate concepts about print, rhyming, initial consonant substitution, blending, segmenting, and sound-symbol correspondence (Valencia, 1997). When contextualized and individualized, checklists and rating scales are appropriate for constructivist remedial assessment.

Individual student miscue analysis is a useful assessment tool to constructivist remedial teachers. The remedial teacher observes and listens to students in authentic literacy events. The teacher records each word that is read/misread by the student and notes specific difficulties during the writing process. The miscue analysis is then analyzed, noting the strategies used, skill deficiencies, and concepts mastered (Bloome & Dail, 1997). The remedial teacher uses miscue analysis information to direct instruction at identified skill deficiencies. While miscue analysis is time-consuming, it can be structured informally and administered occasionally. Accumulated written notations function as concrete manifestations of literacy growth and development. Cumulative written records document student personal progress during the process of learning to read (Yates & Nagel, 1997).

Whole Pieces of Literature

Whole language instruction is especially appealing because it emphasizes whole pieces of literature as opposed to segments of text (Jeynes & Littell, 2001). *The research overwhelmingly favors holistic, literature-centered approaches to reading* (Zemelman et al., 1999, p. 513). Constructivist remediation provides a variety of authentic reading opportunities to individual, paired, and small groups of students. The value of reading and the beauty of literature, critical to student motivation, is most apparent when learning involves whole pieces of interesting, complex, captivating, extensive, and challenging literature.

Students learn to recognize words, to develop and practice phonological processes, to increase fluency, and to enhance automaticity in the context of reading meaningful and interesting literature (Ediger, 2001; Fink, 1996; Wolf et al., 2000). The amount of time that a student engages in the reading process is predictive of reading achievement (Guthrie et al., 2001; Hoover & Fabian, 2000). Thus the goal of remedial reading is to encourage active and self-motivated reading. While reading skills contribute to decoded meaning, student motivation to learn and practice skills is unlikely to exist outside of meaningful text. Meaningful text is not typically defined as practice paragraphs or brief stories with controlled vowels and limited core sight word vocabulary. Opportunities to read narrative and information text as well as to self-select from a variety of genre and

difficulty levels matched to student interest and ability are fundamental to constructivist remediation. Beyond traditional high-interest low-vocabulary and decodable orthographically-controlled abridged and segmented reading material, constructivist remediation emphasizes complete stories and meaningful whole pieces of literature (Zemelman et al., 1999).

Integration of Literacy and Language Development

There is a relationship between speech and language deficits and difficulty learning to read (Lovett et al., 2000). Deficits in listening comprehension may be better indicators of learning disabilities than deficits in reading comprehension because listening, as compared to reading, is a less contaminated measure of language processing (Fink, 1996). Whole language learning, as the name suggests, maintains that oral and written language emerge in response to corresponding cognitive developmental mechanisms (Krashen, 2002). In fact, from a constructivist perspective, literacy development and language development are parallel processes (Goodman, 1998). Since this is the case, remediation focuses on all aspects of the communicative process with the assumption that improvement in one modality will positively affect student functioning in alternative modalities.

Reading, writing, speaking, and listening activities are integrated in constructivist approaches to remediation. Reading contributes to writing skills just as listening contributes to speaking skills. During remedial reading, students actively engage in writing, listening, and speaking activities. Listening and speaking build and reinforce vocabulary prerequisite to decoding and reading comprehension (Pressley et al., 2002). Following a reading activity, extended student written responses reinforce both decoding and encoding (Guthrie et al., 2001). Remedial students compose and write meaningful text containing, for example, words from their personal list of core sight vocabulary (Torgesen et al., 2001). As opposed to traditional instructionist remediation, constructivist remediation shifts the emphasis from decoding to communication, from reading to literacy. Expansion and integration of remedial targets allows for more interesting and varied instructional activities which contribute to student motivation to communicate with written language.

Student Motivation during Remedial Instruction

Student motivation is frequently cited as an instructional advantage of constructivist approaches such as whole language learning (Boran & Comber, 2001; Goodman, 1998; Krashen, 2002). Traditional remediation, based on instructionist assumptions, is aptly described in terms of prescriptive materials, teacher-control, and student passivity (Torgesen et al., 2001). Given the intense, skill-based, fragmented, and isolating nature of instructionist remediation, it is not surprising that both teacher and student motivation is compromised (Vaughn et al., 2002). The importance of student motivation in the learning process cannot be underestimated (Pressley et al., 2002). Constructivist remediation is focused on maximizing student motivation during the remedial process.

Relevant material and necessary skills in meaningful instructional contexts are essential

features of constructive pedagogy (Ernest, 1995). There are two key mechanisms by which constructivist remedial teachers ensure that instruction is relevant to students and that material is meaningful; 1) individual student choice and 2) assignment functionality (Boran, & Comber, 2001; Goodman, 1998). Student choice in learning activities is achieved by teacher provision of a variety of instructional events and materials from which students choose. Such individual choice is empowering to students who assume ownership and responsibility for learning (Johnson, 1998). An equally enduring feature of constructivist education is an emphasis on learning activities that are functional, as opposed to practice-based (Jeynes & Littell, 2001). In constructivist remediation, literacy assignments encourage children to express their thoughts and feeling in writing, for example, letters to parents and friends (Novick, 2002). Penmanship, spelling, and sentence structure become important and meaningful to children who are writing to someone with whom clear communication and a good impression are essential, such as Santa (Hogan & Peterson, 2001). Constructivist remedial teachers maximize student motivation by providing individual choice and by creating instructional activities that are functional to learners.

Constructivism and Instructionism: Two Equally Useful Perspectives

Constructivist remediation targets core skills instruction in phonological processing, sight words vocabulary, and reading comprehension. Such prerequisite skill instruction is based on authentic individual student assessment and is taught in contexts made meaningful by whole pieces of literature, integration of literacy and language skills, and enhanced student motivation via individual choice in learning activities and functional learning events. In this regard, constructivist remediation adopts the instructional value of both constructivism and instructionism, which are conceptualized as equally useful pedagogical perspectives. Constructivist remediation reflects the essential beauty of constructivist approaches such as whole language and includes meaningful student learning, student-centered instruction, active student involvement, student interest and motivation, and student personal satisfaction with learning. Simultaneously, constructivist remediation reflects the essential utility of instructionist approaches such as traditional remedial instruction and includes systematic instruction, curricular efficiency, teacher control, teacher organization, teacher corrective feedback, and specific student learning objectives.

It is time to stop arguing about the nature of reality (Ernest, 1995; Fosnot, 1996), epistemology (Rorty, 1991; von Glasersfeld, 1995, 1996), religion (Goodman, 1998; Shafer, 2001), politics (Boran & Comber, 2001; Taylor, 1998), and research methodology (Krashen, 1999; Zemelman et al., 1999) and aim professional energies directly at the creative integration and practical application of curricular perspectives that, by-the-way, can only exist in relation to one another. As always, there are the two sides -- up and down, left and right, back and forth. Ideally and ultimately, the two sides create an array of instructional possibilities, a series of dynamic tensions, which result in balance, and order, and enhanced curricular alternatives.

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