CONTENT AREA INSTRUCTIONAL STRATEGIES

Content Area Instructional Strategies

Joel R. Montgomery, EdD

University of Phoenix

Content Area Instructional Strategies

The aim of this working paper is to identify research-supported strategies for content that can be integrated effectively to promote the development of biliterate academic literacy by English language learners (ELLs) in middle-school bilingual classrooms. The paper provides a research-based summary of relevant learning needs of adolescent English language learners (ELLs) at the middle school level. The content strategies selected for inclusion in this paper will provide a scaffold for these learning needs and will be presented in an integrated framework supporting one of the curricular areas for eighth grade ELLs in the school district where the author teaches. This paper supplements and complements a related working paper focused on bilingual instructional strategies for reading and writing.

Summary of Learning Needs of Adolescent ELLs at the Middle School Level

Research indicates that ELLs at this level need to have a relevant context for learning in order for learning activities to be both authentic and meaningful (Barab, 1999; Barab & Landa, 1997; Gibbons, 2003). Table one provides a summary of relevant learning needs identified for adolescent ELLs at the Middle School level.

Table 1—Summary of Learning Needs of Adolescent ELLs at the Middle School Level

Learning Need(s)	Source(s)
"Reading, writing, and thinking are the basic processes of learning and . . . . are essential at all stages of our lives."	(Pérez & Torres-Guzmán, 2002, p. 144)
As ELLs engage with their environment and interact with those around them, solving authentic challenges and problems, they make neural connections in their brains that build a reservoir of related sounds, images, gestures, feelings, and results that are	(Fromkin, Rodman & Hyams, 2003; Johnson, 2005; Pérez & Torres-Guzmán, 2002; Willis, 2007)

meaningful. Through this process they acquire language, both native language (L1) and second-languages (L2).	
Learning comes from increasing participation in a community of practice. As ELLs engage in the specific practices of their communities they appropriate the knowledgeable skills that these practices involve.	(Barab, 1999; Barab & Landa, 1997; Haneda, 2008; Pérez & Torres-Guzmán, 2002)
The social environment of the classroom creates opportunities for ELLs to engage in collaborative activities integrating their interests and experiences with higher-order thinking and giving them opportunities to practice language associated with higher-order thinking skills through listening, speaking, reading, and writing activities	(Pérez & Torres-Guzmán, 2002)
ELLs in grades seven and above have a clear need for academic language proficiency. If they built a sound foundation of academic language proficiency in L1, they will still require between three and seven years to achieve appropriate academic language proficiency in L2. If ELLs did not acquire academic literacy in L1 by the time they reached middle school will have significant learning gaps to overcome.	(Cummins, 2000, 2007a, 2007b; Haynes, 2005; Krashen & Brown, 2007)
Hispanic ELLs have been identified as having a field dependent learning style. They are sensitive to the context for learning and have a global perspective—appreciating the whole more than the parts. ELLs prefer active learning on group projects where they can apply their knowledge and skills in practical ways. They are	(Gibbons, 2003)

stronger in inferential reasoning than logical reasoning and are usually more proficient in nonverbal skills than verbal skills.	
"Students best learn skills and concepts as tools to meet present demands rather than as facts to be memorized today in hopes of application tomorrow"	(Barab & Landa, 1997, p. 52)
ELLs are exposed to a need for multiple literacies in a variety of contexts in and out of school. Their motivation for engaging in the learning activities within the schools should be consistent with the reasons that motivate them to engage in these activities outside of school.	(Barab, 1999; Pérez & Torres-Guzmán, 2002)

Content Strategies

"Content literacy, the use of reading, writing, and thinking to enhance learning across the curriculum, not only makes sense, it is essential" (Pérez & Torres-Guzmán, 2002, p. 144).

Anchored Instruction and Rich Environments for Active Learning

A multidisciplinary team of researchers at the Learning Technology Center at Vanderbilt University worked with ideas regarding situated cognition (Garbinger & Dunlap, 1995) and Dewey's ideas of theme-based learning to develop an approach called *anchored instruction* (Barab, 1999; Barab & Landa, 1997; Pérez & Torres-Guzmán, 2002).   An *anchor* is a complex problem that the students acknowledge as worth solving and that validates the learning of a set of relevant skills and concepts (Barab, 1999). Anchored instruction involves placing abstract content back within its authentic contexts. As ELLs engage within these contexts, they gain an appreciation for the uses of the content they are studying and applying in their own lives (Barab, 1999).

Rich environments for active learning (REALs) (Grabinger & Dunlap, 1995) are defined as comprehensive instructional systems evolving from and consistent with constructivist philosophies and theories. They promote study and investigation within authentic contexts; encourage of growth of student responsibility and the use of the metacognitive, cognitive, and affective-social skills and strategies required for academic language proficiency (Garbinger & Dunlap, 1995; Krashen & Brown, 2007). REALs provide learning activities where learners engage in a continuous collaborative process of building and reshaping understanding as a natural consequence of their authentic experiences and interactions within the learning environment. The features of anchored instruction and REALs are integrated into all the content strategies which follow.

Multidisciplinary, Problem-based Thematic Units with SIOP-oriented support

Students will work collaboratively in three or four person teams. Teams will work with a series of both content and language objectives for multidisciplinary, problem-based thematic units (Barab, 1999; Echevarria, Vogt & Short, 2004) which will extend over the length of nine weeks. Scaffolded support will be included throughout the unit and will be guided by information from Structured Instruction Observation Protocol (SIOP®) planning guidelines for English as a second language (ESL). Content will come from ESL and language arts, science, health, social studies, and mathematics (Echevarria, Vogt & Short, 2004). Students will also work to use and apply learning strategies in the use of the academic language required for the project (Krashen & Brown, 2007).   In an early unit, called the Age of Exploration, ELLs will engage with authentic challenges faced by early explorers and will measured by authentic assessment (Gordon, 1998).

Web Quests

Web quests bring the benefits of anchored instruction and REAL learning environments to a series of activities supported by requirements integrated with Internet resources. (Herrington, Oliver, Herrington & Sparrow, 2000). Nine characteristics are used to guide the development of the Web Quest. ELLs are guided to a range of resources available to them in an environment that quickly becomes as familiar to them as their own home workspace. The teacher is a coach rather than an expert. The Web Quest (Montgomery, 2008) puts a rich network of supports in place to ensure students are not overwhelmed. Assessment is integrated with the activities completed in the unit, not as separate assignments. Rubrics are provided for self-assessment, peer review, and teacher evaluation.

Inquiry Learning

Inquiry learning allows the ELLs to explore situations which have no known resolution. Anchored instruction and REAL learning activities will be incorporated.   Inquiry learning is naturally a part of problem-based learning. As students work through the context of the problem—for example, exploring the impact of global warming—they learn content by building their vocabulary and interacting in conversations as they produce authentic written and graphic products for authentic audiences (Gordon, 1998; Pérez & Torres-Guzmán, 2002; Thirteen.org, 2008).

Cooperative Learning

ELLs will be assigned to a series of cooperative learning groups to work on different language and content tasks as part of the anchored instruction and REAL learning activities. As they engage in these groups, they will receive scaffolded support and SIOP-guided instruction. They will focus explicitly on the metacognitive, cognitive, and affective-social skills and

strategies they employ as they work together to solve problems (Allison & Rhem, 2007; Echevarria, Vogt & Short; 2004; Jackson, 2000; Pérez & Torres-Guzmán, 2002; Willis, 2007)

Benefits from Engaging With These Content Strategies

These content strategies can be integrated and can reinforce each other for content instruction and for language development by ELLs. Each is an established approach to learning with research-studies supporting its use. Integrated together these strategies also address the research-verified learning needs for the ELLs. As students gain experience and confidence through their interactions while progressing through a series of planned units of instruction, they will begin to become more aware of their content tools and contexts in which they work.

Summary and Conclusions

The aim of this working paper was to identify research-supported strategies for content that can be integrated effectively to promote the development of biliterate academic literacy by English language learners (ELLs) in middle-school bilingual classrooms. The paper provided a research-based summary of relevant learning needs of adolescent English language learners (ELLs) at the middle school level. The content strategies selected for inclusion in this paper provide a scaffold for these learning needs and were presented in an integrated framework supporting one of the curricular areas for eighth grade ELLs in the school district where the author teaches.

References

Allison, B.N. & Rhem, M.L. (2007, November). Effective teaching strategies for middle school

learners in multicultural, multilingual classrooms. *Middle School Journal, 39* (2), pp. 12-

18. Retrieved on June 22, 2008, from

http://www.nmsa.org/Publications/MiddleSchoolJournal/Articles/November2007/Article

2/tabid/1544/Default.aspx.

Barab, S.A. (1999, September). "Ecologizing" Instruction through Integrated Units. *Middle*

School Journal, 31 (1), pp. 21-28. Retrieved on July 13, 2008, from

http://www.konstruktivismus.uni-koeln.de/didaktik/situierteslernen/herrington.pdf.

Barab, S.A. & Landa, A. (1997, March). Designing effective interdisciplinary anchors.

Educational Leadership, 53, pp. 52-55. Retrieved on July 13, 2008, from

http://inkido.indiana.edu/cec/edleader-anchor.pdf.

Echevarria, J.; Vogt, ME., & Short, D.J. (2004). *Making content comprehensible for English*

learners: the SIOP model, 2nd Ed. New York, NY: Allyn & Bacon.

Fromkin, V., Rodman, R., & Hyams, N. (2003). An introduction to language (7th Ed). Boston,

MA: Wadsworth.

Gibbons, B. (2003, July). Supporting Elementary Science Education for English Learners: A

Constructivist Evaluation Instrument. *Journal of Educational Research*, *96* (6), 371-380.

Retrieved June 8, 2008, from Academic Search Premier database.

Gordon, R. (1998, January). Balancing real-world problems with real-world results. *Phi Delta*

Kappan, *79*, pp. 390-393. Retrieved on July 10, 2008, from

http://www.imsa.edu/programs/pbln/articles/balance.pdf.

Grabbinger, R.S. & Dunlap, J.C. (1995). Rich environments for active learning: A definition.

    [Source: Citeseer]. Retrieved on July 13, 2008, from

    http://citeseer.ist.psu.edu/cache/papers/cs/14264/http:zSzzSzwww.icbl.hw.ac.ukzSz~rayz

    SzALTREALs.pdf/rich-environments-for-active.pdf .

Haneda, M. (2008). Contexts for Learning: English Language Learners in a US Middle School.

    International Journal of Bilingual Education & Bilingualism, *11*(1), 57-74. Retrieved

    June 1, 2008, doi:10.2167/beb425.0.

Haynes, J. (2005). How long does it take to learn English? [EverythingESL.net] Retrieved on

    July 10, 2008, from

    http://www.everythingesl.net/inservices/_long_does_take_learn_english_55843.php.

Herrington, J.; Oliver, R.; Herrington, S. & Sparrow, H. (2000). Towards a new tradition of

    online instruction: Using situated learning theory to design web-based units.

    [ASCILITE 2000 Conference Proceedings]. Retrieved on July 13, 2008, from

    http://citeseer.ist.psu.edu/cache/papers/cs/22985/http:zSzzSzwww.ascilite.org.auzSzconfe

    renceszSzcoffs00zSz.

Jackson, J. (2000) Facilitating interactive learning in second language content courses. [Paper

    presented at the *Conference on teaching through English: Effective language to

    communicate complex content*, The Hong Kong Polytechnic University]. Retrieved on

    July 13, 2008, from http://teaching.polyu.edu.hk/datafiles/R112.pdf.

Johnson, C.C. (2005-Nov). Making instruction relevant to language minority students at the

    middle level. *Middle School Journal 37* (2), p. 10-14. Retrieved June 6, 2008, from

    http://www.nmsa.org/Publications/MiddleSchoolJournal/Articles/November2005/Article

    2/tabid/635/Default.aspx.

Krashen, S. & Brown, C.L. (2007). What is Academic Language Proficiency? [Research paper-

    IN PRESS] STETS Language & Communication Review, 6(1), pp.1-4.Singapore

    Tertiary English Teachers Society (STETS) Retrieved on July 3, 2008, from

    http://www.sdkrashen.com/articles/Krashen_Brown_ALP.pdf.

Montgomery, J.R. (2008). Web Quest on Global Warming and Arctic Animals [Web Quest].

    Retrieved on July 13, 2008, from http://questgarden.com/53/34/6/070713125535/.

Pérez, B. & Torres-Guzmán, M.E. (2002). *Learning in Two Worlds: an integrated*

    Spanish/English biliteracy approach, 3rd Ed. New York: Allyn & Bacon.

Thirteen.org. (2008). Workshop: Inquiry based learning. [Web page]. Retrieved on July 13,

    2008, from http://www.thirteen.org/edonline/concept2class/inquiry/.

Willis, J. (2007, March). Cooperative learning is a brain turn-on. *Middle School Journal, 38* (4),

    pp. 4-13.   Retrieved on July 9, 2008, from

    http://www.nmsa.org/Publications/MiddleSchoolJournal/Articles/March2007/Article1/tab

    id/1287/Default.aspx.