Purpose and Objectives

The purpose of this study was to assess Texas middle school English teachers’ beliefs of importance and teaching frequencies of required reading Texas Essential Knowledge and Skills (TEKS) in their classrooms. The specific objectives of this study were to

1. Describe the target population,
2. Determine teachers’ perceived importance of targeted TEKS objectives,
3. Determine teaching frequencies of targeted TEKS objectives,
4. Identify gaps between importance and teaching frequency levels,

Methods

The design of this study was descriptive in nature, and used a modified Dillman’s Tailored Design (2000). The online method is comparable to traditional paper-based methods in validity and reliability for collecting social science research data and achieves quick response rates at minimal cost (Ladner, Wingenbach, & Raven, 2002).

A convenience, non-probability sample of Texas middle school English teachers (grades 6, 7, and 8) was drawn from the Texas Educational Region 16. Researchers contacted Region 16 middle schools via telephone to obtain valid teacher contact information. Five school districts declined to participate and a valid phone number was not found to contact another school, producing an accessible sample of 129 middle school teachers. Five middle school teachers opted out of the study reducing the overall sample to 124 teachers.

The data collection instrument was divided into three sections. The first section collected respondents’ English-specific degree types and certification status. This data helped determine English teachers’ qualification status educational level. The second section contained a modified Borich model for needs assessment (Borich, 1980) where teachers indicated their perceived
importance (N = none, L = low, A = average, H = high) and teaching frequency (N = never, M = monthly, W = weekly, D = daily) for each of the 23 TEKS reading objectives comprising the English Language Arts Reading TEKS subchapters six, nine, and ten. Sample objective statements for these three subchapters are listed in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Subchapter</th>
<th>TEKS Objective Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Reading/word identification</td>
<td>apply knowledge of letter-sound correspondences, language structure, and context to recognize words, use structural analysis to identify words, including knowledge of Greek and Latin roots and prefixes/suffixes</td>
</tr>
<tr>
<td>9 Reading/vocabulary development</td>
<td>determine meanings of derivatives by applying knowledge of the meanings of root words such as like, pay, or happy and affixes such as dis-, pre-, or un- distinguish denotative and connotative meanings</td>
</tr>
<tr>
<td>10 Reading/comprehension</td>
<td>paraphrase and summarize text to recall, inform, or organize ideas, draw inferences such as conclusions or generalizations and support them with text evidence and experience</td>
</tr>
</tbody>
</table>

The modified Borich (1980) model produces a weighted discrepancy score to identify gaps between what is and what should be. The Borich model was used to determine existing gaps
in middle school English teachers’ perceived level of importance and teaching frequency for
subchapters six (reading/word identification), nine (reading/vocabulary development), and 10
(reading/comprehension) from the TEKS Chapter §110.23, English Language Arts and Reading.

To determine the mean weighted discrepancy score (MWDS) from the Borich model, a
discrepancy score was calculated for each of the TEKS by subtracting the frequency rating from
the importance rating. A weighted discrepancy score was then calculated for each TEKS by
multiplying the discrepancy score by the mean importance rating. A MWDS for each TEKS was
calculated by summing the individual weighted discrepancy scores and dividing each by the
number of its observations. All 23 TEKS were ranked by each MWDS (Layfield & Dobbins,
2002).

Content validity of the TEKS statements was established by a team of educators, policy
makers, education experts, and parents who determined these skills should be taught and
mastered at the middle school level in Texas (TEA, 2005b). Summated scale reliabilities to
determine the internal consistency of Chapter 110.23 subsections six (reading/word
identification), nine (reading/vocabulary development), and 10 (reading/comprehension) were
calculated using Cronbach’s alpha coefficient at the .05 level (Cronbach, 1951) (Table 2).
Reliability coefficients for overall importance and teaching frequency were both (.90). Reliability scores for subsections six (reading/word identification) importance and teaching frequency were both below the acceptable range of .75 (Tuckman, 1999). However, subsection six was included in the analysis as it will be used to determine needs of middle school English Language Arts teachers as supported by Ary, Jacobs, and Razavieh (1996) who noted:

> The degree of reliability needed in a measure depends to a great extent on the use that is to be made of the results. If the measurement results are to be used for making a decision about a group or even for research purposes, a lower reliability coefficient (in the range of .50 to .60) might be acceptable. (p. 287)

The third section collected demographics and additional descriptive data such as teaching experience, attendance and delivery mode preference for professional development.

Following Dillman’s (Dillman, 2000) tailored design, respondents were e-mailed a prenotice three days prior to the first notice containing the survey hyperlink. A compressed time

<table>
<thead>
<tr>
<th>Knowledge and Skill Areas</th>
<th>Objectives</th>
<th>Reliabilities</th>
<th>Knowledge Scale</th>
<th>Comfort Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading/Word Identification</td>
<td>3</td>
<td>.67</td>
<td>.53</td>
<td></td>
</tr>
<tr>
<td>Reading/Vocabulary Development</td>
<td>7</td>
<td>.78</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>Reading/Comprehension</td>
<td>13</td>
<td>.86</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>Overall Summed Scales</td>
<td>23</td>
<td>.90</td>
<td>.90</td>
<td></td>
</tr>
</tbody>
</table>
schedule was used for successive follow-up notices because Web surveys yield responses more quickly than do mail surveys, thus reminders can be spaced more closely together (Fraze, Hardin, Brashears, Haygood, & Smith 2003).

The survey notice was generated as an e-mail merge so each respondent received a personalized notice with a unique password and hyperlink to the survey. The notice included a brief description of the study, IRB approval, survey hyperlink, respondent’s unique password, and researcher’s contact information. Participants accessed the study through an online Web site consisting of an information and consent page listing the study’s purpose, voluntary nature of response, Institutional Review Board (IRB) approval, and researcher contact information. Respondents indicated consent by submitting their unique password to enter the survey instrument.

Three follow-up e-mail notices were sent to non-respondents at three-day intervals after the initial notice. In the second follow-up, non-respondents were offered a paper version of the survey and were given the option to be removed from the study. The original survey notice and three follow-up reminders produced a response rate of 61.3% ($n = 76$). Two teachers submitted instruments that were over 50% incomplete reducing the usable sample size ($n = 74$).

Non-respondents and late respondents are often similar (Goldhor, 1974). Determining if significant differences exist between the scores of early respondents to late respondents on key variables of interest is an accepted method of determining whether or not external validity is threatened by nonresponse (Lindner, Briers, & Murphy, 2001). Successive “waves” of stimuli yielded proportionately similar numbers of responses ($n = 33, 21, 14, 7$). Therefore, multivariate analysis using the Statistical Package for the Social Sciences (SPSS) was conducted on the discrepancy scores for all 23 TEKS objectives to determine if significant differences existed
between the four groups. Multivariate analysis indicated no significant differences between respondent waves at the \( \alpha .05 \) level, indicating that non-respondents were equivalent to respondents. Study findings may thus be generalized to the population of interest (\( N = 129 \)).

Descriptive analyses were used to describe the data. Mean Weighted Discrepancy Scores were calculated to identify gaps between perceived importance and classroom teaching frequency, and were prioritized according to need.