Reliability and Validity of Selected Criteria of *Light's Retention Scale*

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Grade retention is an old and persistent practice in North American schools. Estimates vary from region to region, but the proportion of elementary students repeating a grade appears to have altered very little over the past two decades (Canadian Education Association, 1989, p. 3). Meanwhile, researchers have questioned whether grade retention improves students' performance. A large volume of research suggests that the potential for positive outcomes of grade retention is consistently outweighed by the potential for negative outcomes (Holmes & Matthews, 1984). Still, a minority of students do benefit (Shepard & Smith, 1989; Westbury, 1994). Both educators and parents would be less anxious if they could determine in advance which students would benefit from retention.

Light's Retention Scale (hereafter, *LRS*; Light, 1986a) is meant to provide "a format that aids the school professional in determining whether the elementary or secondary school student would benefit from retention" (Light, 1986b, p. 5). The scale includes 19 criteria: sex, age, knowledge of the English language, physical size, present grade placement, previous grade retentions, number of siblings, parents' school participation, experiential background, transiency, school attendance, estimates of intelligence, history of learning disabilities, present level of academic achievement, attitude towards possible retention, motivation to complete school tasks, immature behaviour, emotional problems, and history of delinquency. Parents and/or teachers rate the potential candidate from 0 to 5 on the 19 items; a score of 0 indicates a strong belief that the child *would* benefit from retention and 5 indicates a strong belief that he or she *would not.* The sum of the ratings is used to categorize the student's suitability for retention as excellent, good, fair, marginal, poor, or unsuitable (Light, 1986b, p. 11).

Neither *LRS* nor the accompanying manual (Light, 1986b) provides norms. Light explains that *LRS* is not a psychometric instrument and should be used only as a counselling tool (Light, 1986a, p. 1). He does, however, state that the weights assigned to each of the 19 categories were determined after careful analysis of the research on each (Light, 1986b, p. 12).

Several researchers investigated earlier editions of *LRS.* Watson (1979) suggested that the scale may not predict achievement gains during the repeated year. Sandoval (1980) demonstrated that an earlier edition of the scale lacked validity and reliability. Sandoval (1982) further found that Light's scores did not correlate with the academic performance, self-concept, or mental health of retained stu-

dents. Harrison (as cited in Vasa, Wendel, & Steckelberg, 1984) cautioned about the use of some of the 19 criteria. Vasa, Wendel, and Steckelberg (1984) asked 325 school personnel to rate their use of 12 of the 19 *LRS* criteria in making retention decisions. Only 3 of the 12 items were used by more than 50% of respondents to either a considerable extent or a great extent; a large majority of school personnel stated that they never used some *LRS* categories.

Light revised the *LRS* in 1986. The new scale items, nevertheless, remained fairly consistent with those in earlier editions. Fourteen of the 19 criteria have weight parameters of 0 to 5, and the remaining 5 criteria have weights from 0 to 4. I undertook a study of the 1986 *LRS*, which was not used in earlier studies, because of evidence that the scale is currently in use in North America. Compelling evidence is provided in the Canadian Education Association's survey of 122 school divisions across Canada, which documented use of Light's scale in grade promotion and retention decisions. One large Ontario school district used a weighted 21-item scale that included all of Light's criteria under different descriptors (Canadian Education Association, 1989, p. 10). It is crucial to determine if the scale is reliable and valid before it is used on even one school population.

METHOD

The study sample consisted of 93 randomly selected students, from several schools, who were one-time elementary grade repeaters. Most had repeated Grade 1 or 2; they ranged in age from 6 to 8 at the time of retention.

Two-thirds of the students were males, which is consistent with statistics on elementary school retention. The students were selected after elementary school completion, and historical profiles of the students were recorded from student record cards. Eleven of the 19 categories on the *LRS* were consistently available across the schools: sex, age, knowledge of the English language, present grade placement (grade repeated), previous grade retentions, transiency, school attendance, estimate of intelligence, history of learning disabilities, present level of academic achievement, and emotional problems. Two categories were inapplicable to the sample: "history of delinquency" was omitted because no student had such a history, and "immature behaviour" was omitted because it was considered to be redundant as teachers of the sample children used immature behaviour as an indicator of another category, emotional problems. The remaining 6 categories were not consistently recorded. Using Light's weights, I calculated the sum of the 11 variables for each student to determine the number of students in each retention category. Interpretation of the total score was prorated to account for 11 rather than 19 variables.

The internal consistency of the scale items was measured using coefficient alpha. To assess the predictive validity of the selected criteria, I used the *Canadian Cognitive Abilities Test* (hereafter, *CCAT*; 1982) gains in standard age

scores for verbal, quantitative, and nonverbal ability because an earlier study revealed gains on the test among repeaters (Westbury, 1994). I assumed that cognitive ability gains indicated an increase in achievement since the two tend to be positively correlated. My intention was to ascertain if the *LRS* categories correlated with cognitive ability standard age scores over time.

Since the *LRS* manual cautions that "it is unusual for a pupil with even one or two 5s on the scale to benefit by retention" (Light, 1986b, p. 12), I also tested prediction validity by contrasting two groups of students: the good and excellent candidates with no 5s and the remaining poor candidates.

RESULTS AND DISCUSSION

Most students in the sample were identified as good retention candidates after summing the 11 Light's criteria. Fully 68.7% were good or excellent candidates likely to benefit from retention; another 30.2% of the students fell into the fair or marginal retention category. The mean score was 16.5. No student scored in the "student should not be retained" category.

Internal Consistency

Cronbach's alpha, a measure of internal consistency, was computed for the scale items. The obtained *LRS* alpha of .04 falls far short of any acceptable standard. An alpha of .90, the minimum recommended by Salvia and Ysseldyke (1978), would be unattainable even if the 6 remaining usable categories were included and were highly consistent.

Predictive Validity

Predictive validity is used here to measure whether the selected *LRS* criteria effectively identify students likely to benefit from retention as measured on the *CCAT.* Long-term gain or loss (difference) in cognitive ability was measured by comparing the standard age scores at the time of retention with those three years after the retention.

The selected *LRS* criteria totals did not correlate significantly with differences in verbal cognitive ability. The *LRS* totals did show significant positive correlations with improvement in quantitative ($p < .05$) and nonverbal ability ($p < .001$) over time; however, this means that the poor candidates for retention (students with higher *LRS* scores) showed greater improvement in achievement.

The predictive validity of the scale was also tested on the basis of Light's (1986b) assertions that students obtaining any rating of 5 would be unlikely to benefit from retention. I found no significant, long-term improvement differences in verbal and quantitative ability between the good and the poor retention can-

didates. Consistent with the full-scale results, however, the poor retention candidates had a significantly higher average gain on the *CCAT* nonverbal scale. The mean for good candidates was –0.24; the mean for poor candidates was 9.0 ($t = –3.48$, $df = 77$, $p < .005$).

SUMMARY AND IMPLICATIONS

Results showed that the modified *LRS* is not a reliable or valid instrument. The selected scale items did not predict improvement in cognitive ability among the sample of elementary school students. The results were the opposite of what would be expected, with poor retention candidates showing significant improvement in nonverbal cognitive ability over time. Neither the simple scale totals nor the revised totals when students with 5s are deleted should be used to make decisions about individual students. These findings, added to earlier research, emphasize the difficulties of deciding which children, if any, should spend a second year in a grade.

Much of the research supports the view that most students do not benefit academically or socially from retention (Shepard & Smith, 1989). However, many educators continue to advocate retention because a minority of students do benefit. Research provides little support for this view. First, there is no way to determine, a priori, if the same minority of students would have benefited or improved had they been continuously promoted. Variables other than grade retention may affect the improvement in student performance. Second, this study and others suggest there is currently no way to predict reliably which students will benefit from retention. Given the potential negative consequences of retention, it may be preferable to abandon the practice until reliable and valid indicators are developed. In the meantime, educators should continue to seek ways, such as offering remedial instruction, to help students improve their performance while keeping them with their age peers.

REFERENCES

Canadian Cognitive Abilities Test: Multilevel edition. Examiner's manual. (1982). Scarborough, ON: Nelson Canada.

Canadian Education Association. (1989). *Grade promotion and retention: Practices in Canadian school boards* (CEA Information Note). Toronto: Author.

Holmes, C. T., & Matthews, K. M. (1984). The effects of nonpromotion on elementary and junior high school pupils: A meta-analysis. *Review of Educational Research, 54,* 225–236.

Light, H. W. (1986a). *Light's Retention Scale* (Rev. ed.). Novato, CA: Academic Therapy Publications.

Light, H. W. (1986b). *LRS: Light's Retention Scale Manual* (Rev. ed.). Novato, CA: Academic Therapy Publications.

Salvia, J., & Ysseldyke, J. E. (1978). *Assessment in remedial and special education.* Boston: Houghton Mifflin.

Sandoval, J. (1980). Reliability and concurrent validity of *Light's Retention Scale*. *Psychology in the Schools, 17,* 442–445.

Sandoval, J. (1982). *Light's Retention Scale* does not predict success in first grade retainees. *Psychology in the Schools, 19,* 310–314.

Shepard, L. A., & Smith, M. L. (Eds.). (1989). *Flunking grades: Research and policies on retention.* London: The Falmer Press.

Vasa, S. F., Wendel, F. C., & Steckelberg, A. L. (1984). *Light's Retention Scale*: Does it have content validity? *Psychology in the Schools, 21,* 447–449.

Watson, D. (1979, October). *The relative efficiency of the* Light Retention Scale *in identifying children for retention.* Paper presented at the annual convention of the National Association of School Psychologists, San Diego, CA.

Westbury, M. L. (1994). The effect of elementary grade retention on subsequent school achievement and ability. *Canadian Journal of Education, 19,* 241–250.

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