case, Field's paper is so filled with errors of omission and commission that it does not merit serious consideration. There is strong evidence of the reliability and validity of the SDLRS. While it may not be the perfect measurement tool, it is the best that we have in this area of study (Long & Agyekum, 1988, p. 264).

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Some Additional Criticisms of Field's Investigation

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Field (1989) is commended for his interest in self-directed learning. However, the research report adds little that is new to the literature, and it is sufficiently marred by flaws to question the reported conclusion, that is, the SDLRS is not an indicator of readiness for self-directed learning.

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OMITTED AND SELECTIVE LITERATURE REVIEW

Field justifies his conclusion in part by observing that most of the claims regarding the scale rest upon Guglielmino's (1977/78) developmental work. Failure to adequately review the literature and inaccurate descriptions of it introduce serious error into Field's premises and conclusion. For example, he fails to report the detailed study conducted by Finestone (1984/86) who concluded: "...results of empirical and observational data lend support to the claims that the SDLRS is valid. Instructor and observer ratings of participants' level of self-directedness were significantly correlated ($p = .05$) with the SDLRS scores. Using the SD as a measure of meaning it was found that participants with high scores...held a significantly different ($p < .001$) set of meanings for the eight factors...than did those with low scores" (1984, pp. ii-iii).

Studies by Torrance and Mourad (1978a, 1978b) and Mourad and Torrance (1979) were ignored. The 1979 study is particularly pertinent because it provided an analysis of the 58 item scale. The study, based on principal component analyses, identified eight factors similar to the ones identified by Guglielmino (1977/78). They also note a significant correlation between SDLRS scores and teacher ratings. In summary, Mourad and Torrance indicated their findings were supportive of the validity of the SDLRS. See also Carney's (1985/86) study of gifted children. Thus, there are studies of the validity and reliability of the SDLRS that are not based on Guglielmino's developmental work.

With regard to studies Field does mention, his comments about the Long and Agyekum (1983, 1984) papers are particularly misleading. He implies that the authors limited their investigations to "assumptions about dogmatism and independent thinking" (Field, 1989, p. 126). Instead, they engaged in a complex multitrait-multimethod procedure based on a study of both convergent and divergent relationships as revealed by correlations between the SDLRS and three other variables: dogmatism, agreement response set, and faculty ratings of self-direction. In the second study (1984) they also analyzed relationships between the SDLRS and seven variables. According to Field, the absence of a significant association between faculty ratings and SDLRS scores is sufficient to charge that the SDLRS is invalid. The authors took a more judicious view and took the divergent relationship between SDLRS and other variables into consideration. Problems, including some puzzling racially confounded findings associated with the first faculty rating scale, were discussed by the authors.

Finally, the quote attributed to Long and Agyekum (1984) was inappropriately lifted out of context. Field uses the quote to suggest the authors were referring to self-directed learning as a hypothetical construct. Instead, Long and Agyekum were addressing a social evolution in learning and schooling. The sentence before the quote says, "The trends in Western society that encourage continuing learning in formal and informal setting are

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paralleled by the increasing recognition that a large part of adult learning in the future will be of a self-directed or autonomous kind" (p. 710).

PROBLEMS WITH FIELD'S STUDY

The second justification for concluding the SDLRS is invalid, according to Field, is based on his failure to discover an eight factor solution. He attributes this finding to a laundry list of flaws he identifies in Guglielmino's thesis. Most of the flaws noted by Field amount to nit-picking. He is correct in noting that Guglielmino does not give an operational definition of "readiness" and "self-directed learner." It is apparent, however, that her dissertation was designed to contribute to the development of definitions rather than to begin from an a priori definition. The use of a firm definition in her communications with her panel would have been a limiting factor. If we score Guglielmino for her omission, note that Field is equally guilty of a similar error. Operational as well as descriptive definitions of structure, validity, and reliability are not found in his paper.

The concern about the differences between the 41 item scale and the 58 item scale is appropriate. However, had he reviewed the article by Mourad and Torrance (1979), he would have had information about the 58 item scale. They report their findings are very near the factor structure reported by Guglielmino (1977/78).

It is questionable behavior to assert that the SDLRS is generally invalid based solely on correlations of the scale items on a sample of 244 students. In essence, Field's study is no more than a cross-validation because he used a different kind of group from the one on which the SDLRS was standardized. Elsewhere, Long (1987) cautions against the use of the instrument with a sample that may be quite different from the original sample until further data are available. This writer has conducted item analyses using several different samples. The range of items that fail to be significantly ($p = .05$) correlated with the total SDLRS score is from 3 items to 27 items. Discovery of a different set of correlations among different samples does not automatically lead to Field's conclusion. Item-total score correlation seems to be associated with different variables such as age (Long, 1987). Yet, Field's report provides no information concerning his sample other than a general descriptor that they are diploma students.

CONCLUSION

Finally, we arrive at the conclusion that Field's study has made a very limited contribution to knowledge concerning SDLRS validity and reliability. Continuing study of the SDLRS is needed. Questions remain. But definitive answers to those questions usually are beyond the ability of one researcher to resolve in one study. The comment by Mourad and Torrance (1979) that "data structure is always different from sample to sample" (p. 102) might have been helpful to Field. More investigations are needed, but we need to

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do more than what Field has done. For example, Guglielmino and McCune are currently investigating a very large data base that may resolve some of the questions. In addition, West and Bentley (1989) have adopted a different factor approach that is constructive.

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A Statistical Critique of Field's Investigation

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The methodological and statistical approach taken by Field (1989) in his analysis of Guglielmino's (1977/78) Self-Directed Learning Readiness Scale (SDLRS) suggests some misunderstandings of the statistical concepts he employed.

Field administered a *modified* version of the SDLRS to 244 students and after performing a number of analyses proceeded to discuss his results as if

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