

The Lowenfeld Mosaic Test's Application in Schools

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BRITISH JOURNAL OF PROJECTIVE PSYCHOLOGY (1992) VOL. 37, NO. 2

Abstract

After languishing in relative obscurity for many years, there is recent evidence of renewed appreciation for the potential applications of the Lowenfeld Mosaic Test (LMT) in the assessment of personality. From the perspective of a school psychologist, the author describes the test itself and discusses the characteristics that make it particularly well-suited for use in the school setting. Case material is presented which illustrates the usefulness of the mosaic as part of the individual assessment procedure. Discussion of hypotheses generated from test performance and the manner in which these hypotheses contribute to the formulation and implementation of constructive educational interventions, including counselling, is presented.

The Lowenfeld Mosaic Test (Lowenfeld, 1954) has seen a recent resurgence of interest in its potential applications in clinical practice. Publications by Ames (1986), Perticone & Tembeckjian (1986), and Woodcock (1984) have stimulated renewed interest in this technique and in its value as an assessment tool. While the technique appears to have a broad range of useful applications, it seems quite obvious that the school psychologist, in particular, will find the LMT well suited for the types of assessments he/she must undertake, for the population with which he/she works, and for the context in which he/she must function. From the perspective of a school psychologist, the author will outline some of the attributes of the LMT which make it particularly well-suited for the school setting and follow the discussion with an illustrative case example.

By way of belief orientation for practitioners who may not yet have familiarised themselves with the Lowenfeld technique, the test materials consist of 456 mosaic tiles of assorted shapes (5) and colours (6). The subject is asked to "do something with the tiles" on a standard size tray (12 3/ 8" x 10 1/ 4") placed in front of him/her. The psychologist then notes not only the final product constructed by the subject, but his/her entire manner of approaching the task. Such variables as the amount of time devoted to the task, the spontaneous questions or comments offered, the method of handling the tiles, the ease or difficulty with which the subject becomes involved with the test materials, etc., are all regarded as significant data from which useful hypotheses may be generated. Typically, an inquiry about the construction is conducted with the individual after completion of the task.

The ambiguous nature of the Lowenfeld technique certainly creates room for very diverse and highly individualised responses by subjects. At the same time, the individual's awareness of the examiner's purpose and hence the potential inclination to produce "appropriate" or "socially acceptable" responses is minimised. It is hypothesised, therefore, that the subject will exhibit in the test situation his/her characteristic manner of bringing structure to an ambiguous situation, his/ her method of problem-solving and that his/ her responses will contain hints, if not frank expressions, of current preoccupations and conflicts.

The author has used the Lowenfeld technique with virtually all student referrals for the past several years, often in conjunction with human figure drawings or other projective techniques. The need for this type of assessment should, perhaps, go without saying. At the risk of stating the obvious, however, terms such as "intelligence" and "academic potential" cannot be properly understood and discussed outside of the context of personality dynamics. It is necessary to understand how and where the individual apportions and focuses his resources, how he/she perceives him/herself, the environment, achievement, and whether emotional factors interfere, to a significant degree, with cognitive, affective and social adjustment. Such understanding becomes the basis not merely for classification of the student's educational needs, but for appreciating his/her experience and hypothesising the specific instructional, social and family interventions which are likely to provide the greatest opportunities for learning in its broader sense.

If the necessity for regularly including personality assessment as an integral part of a psycho-educational evaluation is accepted by the psychologist, then the question of which of the many available techniques one selects must be addressed. There is much to be said on behalf of such instruments as the Rorschach, TAT, Kinetic Family and Human Figure Drawings, incomplete sentences, and other highly useful and well-researched assessment tools. Here, the author will mention some of the characteristics of the LMT which have proved, in his experience, to make it an instrument that is of exceptional value in the school setting.

A rather unique aspect of the LMT is that it is kinetic. The examiner may observe, first hand, the student's manner and approach to solving problems. Being essentially non-verbal, the technique does not place artificial constraints on one's performance due to limited facility with verbal concepts, vocabulary or expressive language. The examiner may base his/her assessment upon what is observed, rather than what is reported or described by the subject. This characteristic of the LMT, while noteworthy in any setting, is particularly relevant for the school situation where the examiner is frequently dealing with individuals with suspected language difficulties and with the culturally different or disadvantaged. Although cultural differences in mosaic patterns of children have been reported (Lowenfeld, 1954), it appears to be one of the more inherently culture-fair techniques available.

Another consideration for use of the LMT in schools is its non-threatening, if not inviting, appeal to subjects. The author has never encountered the least resistance in presenting the task to school-age children. With the young, it is more likely that his / her enthusiasm to begin must be gently curbed until the instructions are given! Older students usually accept the task good-naturedly. While these observations usually apply as well to the use of figure drawings, the same cannot be said for verbal techniques such as the Rorschach and TAT which are sometimes overtly or covertly resisted.

A very important consideration for school psychologists in developing an assessment battery is the economical use of time. Here again, the LMT fares exceptionally well. Although there is no time limit to the performance proper, subjects

usually spend less than ten minutes on the task. Inquiry may require another five minutes. Time requirements for interpretation, of course, depend upon the examiner's experience and facility with the mosaic technique. The richness of the data generated and the directness with which it is expressed and observed make the rather modest investment of time one that is well-rewarded.

Finally, the technique can be applied with students of all ages. The form of the test is universal, though the interpretation is a clinical one. Normative data for the use of specific colours and design patterns are available (Ames & Ilg, 1962), though their utility is somewhat attenuated for subjects over approximately ten years of age. Because the test is ambiguous and there are no right or wrong responses, the test can be re-administered at frequent intervals if necessary, without compromising the clinical validity or interpretive value of the data generated.

Illustrative case material

The utility of the LMT as part of a test battery in the school setting is illustrated in the case described below. This particular case was selected not because it is typical, but because it demonstrates in an exceptionally clear and direct way the tendency of the student to symbolise or project his experience through the Lowenfeld mosaics. In most applications the projections of a subject, while they might be as unequivocal as the ones noted here, will not be accompanied by the spontaneous interpretation offered by this student which left little room for doubt as to the interpretive significance of his mosaic.

At the time of testing, Stan was 18 years old and a high school junior. He was being tested as part of the periodic comprehensive re-evaluation required for handicapped students under New York State Law. Academic and social problems were noted with Stan from his first year in school. He was soon identified as a learning-disabled student with concurrent significant emotional problems. He received special education services virtually throughout his schooling.

Over the years, Stan's measured abilities were marked by inconsistency and apparent contradictions. He had earned Wechsler IQ scores ranging from borderline

to average. At one time or another, he had performed at or above average on all subtests. Likewise, his visual-motor performance on the Bender-Gestalt test ranged from very poor to error-free. During the current evaluation, Stan made 3 errors on the Bender, according to Koppitz' (1963) criteria. His Verbal, Performance and Full-Scale IQ all fell within the Low Average range of the WAIS-R. Stan's human figure drawings were well-drawn and conceptually quite sophisticated.

Stan's handling of the LMT as will be seen, was very useful in understanding the nature of the young man's experience and the manner in which his resources were likely to be deployed. This lay the ground work for generating appropriate intervention strategies. What is remarkable about Stan's LMT performance is that he virtually narrates the interpretive hypotheses associated with his construction as he is in the process of creating it. Stan began the task without delay and worked for just over 2½ minutes.

"Make anything?" Stan asked, and selected four red equilateral triangles from the box of tiles. The quick selection of the red tiles suggest that strong emotions, probably anger, are a central theme for Stan. He stated, "This is something if I get upset - if somebody is really bugging me...Make a symbol? (No mention of "symbols" or remotely associated suggestions had been made). Alright, this is a barrier or something". Stan went on to place the 4 red triangles on the tray as illustrated in Figure 1. Note that the triangles, positioned point to point are suggestive of tension and conflict. At the same time, the outward projecting points indicate that acting out tendencies are present.

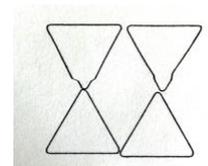


Figure 1.
Student's partially-constructed
mosaic (tiles are red)

Stan next selected two white equilateral triangles and placed them within the red "barrier". White, especially when centrally placed, often signifies emotional deprivation with concomitant low self-esteem and difficulty with social relationships. Stan commented, "White means like it wants to go out, but you can't trust anybody - like when I was young, people were teasing me and I didn't know if they meant it or not". Significantly, on the WAIS-R Comprehension item where Stan was asked why borrowing money from a bank might be better than borrowing from a friend, he replied, "Because the friend would probably cheat you, like a loan-shark"

Stan then placed four outward-projecting, white scalene triangles around his "barrier" and encircled these with red diamonds spaced loosely around the central design. The final arrangement is presented in Figure 2. While doing this, Stan

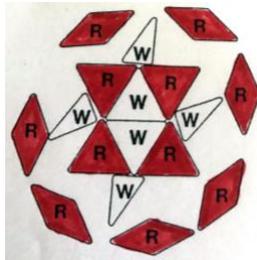


Figure 2.
Student's final mosaics

remarked, "I tried to express my feelings but was blocked by my defences. I was jumpy. I guess that's why I have a bad temper. The white ones mean 'go out, meet new people, don't be scared of them.'" but the red ones mean discomfort, people that I don't trust".

Stan's "defences" are symbolised by the red diamonds which are reminiscent of a wagon-train circled defensively in territory that is assumed hostile until proven otherwise. The inner triangles suggest a ready retaliatory response while the white scalenes are indicative of a tentative effort at establishing more satisfying relationships in the interpersonal environment. Stan's efforts at interpersonal fulfilment are hampered by low self-esteem and a restricted repertoire of social skills. Breaks in the outer "defensive" circle suggest that both the outwardly-projecting impulses to establish more satisfying relationships and to act out aggressive drives may find overt expression at times. By the same token, Stan is at least somewhat interpersonally accessible and the formation of a therapeutic relationship with Stan would seem to be within reach.

More exhaustive discussion of Stan's personality dynamics is not necessary here, since it is the usefulness of the LMT and not the personality of the student, Stan, that is at issue. Suffice it to say that the interpretive hypotheses generated through use of the LMT were strongly and consistently supported by analysis of Stan's responses to the other evaluation instruments (WAIS-R, DAP and Bender). Stated in brief and over-simplified terms, Stan is a young man with low self-esteem who is emotionally isolated. Management of aggressive drives is problematic for Stan and he makes prominent use of the defence of projection. His perceptions have a distinctly paranoid flavour, suggesting unresolved oedipal issues.

To what use can such observations be put in the school environment? The assessment provided the framework for three significant outcomes. First, it seemed likely that, as some of Stan's teachers had suspected, he was a good deal more

capable, intellectually, than standardised test scores reflected. The conceptual sophistication of his drawings, his mosaic, and attendant verbalisations pointed to that. At the same time, he was unusually self-conscious and his attention to the environment often served a primarily defensive function. Stan's teachers recognised the need to establish for him the kind of therapeutic conditions in the classroom that helped him to feel safe, secure and accepted. Stan could invest energy in his academic and vocational pursuits only to the extent that his needs for safety and acceptance were satisfied. A team of school personnel, including Stan's teachers, the school social worker, the school psychologist, Stan's guidance counsellor and an administrator convened to discuss Stan's needs and to develop specific plans for interacting with Stan and communicating with his family in a therapeutic fashion.

A second significant outcome of the evaluation was that Stan's family could be provided with useful information about Stan's strengths, limitations, and above all, his needs. As with the teachers, Stan's parents could readily perceive and appreciate the subjective distress and conflict portrayed by him without any need for defensiveness. For the school psychologist, the parent conference also resulted in a clearer assessment of the family dynamics and their implications for Stan's progress. Appropriate recommendations were shared with Stan's parents and trust of the psychologist was strengthened. Consent for Stan's participation in counselling with the school psychologist was gained.

The third area of intervention that was facilitated through the use of the LMT was that of individual counselling with Stan. Initially, the results of the evaluation were discussed with Stan from an essentially quantitative perspective, emphasising the academic implications of his performance. Coupled with this review was the school psychologist's reference to the conflicts expressed during the performance of the LMT, and an invitation to elaborate further. After some brief, initial reticence, Stan began to speak freely of his conflicts and concerns. Based upon both the content and process of Stan's LMT, it seemed likely that the young man was insight-oriented (verbally and non-verbally symbolised and analysed conflicts) and verbal.

The therapy was rather brief due to the approach of the conclusion of the school year. Its efficiency was aided by the presence of so much useful assessment data and

by the non-defensive relationship that had evolved with the counsellor. The perceptions and concerns disclosed by Stan were remarkably consistent with the material inferred through the administration of the LMT, in combination with the other assessment data. Furthermore, Stan and the counsellor were able to refer back to the LMT and human figure drawings to draw forth additional material for the student's self-exploration and growth.

As Woodcock (1984) states, the LMT has the remarkable quality that the individual has a sense of control and can develop insight at his own rate. Where suspiciousness and projection could have presented formidable "resistances" in counselling a young man like Stan, the LMT appears to have been a very useful tool in developing and supporting assessment hypotheses as well as facilitating exploration within the counselling relationship.

Discussion

The nature of the Lowenfeld Mosaic Test was discussed. Its non-verbal, kinetic character, brief time of administration, attractiveness to children and appropriateness for re-administration, make it a particularly useful instrument in the school setting. When used in conjunction with other assessment techniques, it can help to yield a rich and dynamic fund of observations from which hypotheses about personality- drives and their management-can be made. Sound hypotheses of this type are the necessary context for understanding the cognitive-social and emotional needs and capabilities of students.

Some of the applications of the LMT in the school setting are illustrated and discussed in the account of the case of Stan. In the brief time Stan used to construct his mosaic, he communicated an exceptional amount of personal data which had a significant bearing not only on his ability to succeed in school, but his ability to find satisfaction in his adjustment to life as well. The LMT data also helped in determining the relative emphasis to be given to emotional and learning disability factors as both sources of difficulty and foci of treatment in Stan's case. The symbolism of Stan's LMT was quite dramatic and was easily communicated to teachers. Thus, understanding

and empathy toward Stan and his needs were readily increased. Implications for classroom management involving Stan were more easily accepted by concerned and understanding teachers.

For counselling, the LMT served the triple function of:

- (a) suggesting the presence of a significant, dynamic conflict requiring attention.
- (b) identifying the salient issues upon which to focus the counselling effort.
- (c) serving as a tool for the student's own self-examination and reflection.

The counsellor and student returned occasionally to the mosaic itself to discuss the significance of certain aspects of it and to compare current perceptions and attitudes with those evident at the time of test administration. To the above functions, one might easily add the cross-validation of personality indices noted elsewhere in an assessment battery. Also, as illustrated by Perticone & Tembeckjian (1986) and Woodcock (1984), though not shown here, re-administration of the LMT at intervals maybe used as a check of therapeutic progress and barometer of emerging or shifting treatment needs.

The schools, as well as in other settings, the LMT offers a rather unique combination of advantages that make it worthy of more widespread use. It is quick and easy to administer, inherently appealing to students and relatively free of cultural bias. In addition, it allows for direct, holistic observation of behaviour, and can be re-administered many times to the same individual without loss of interpretive significance and value.

Footnote

1. *It is assumed throughout this discussion that the reader is familiar with psychodynamic and psychoanalytic principles as they pertain to oedipal issues and to the development of projection as a defence mechanism.*

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