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Products of Mind: Exploring Student Preferences for Product Development Using *My Way ... An Expression Style Instrument*

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ABSTRACT

In this article, students' preferences for creating potential products are explored through the use of an expression style inventory. A total of 3,532 students from 45 school districts in 24 states completed surveys designed to assess their interest in creating a variety of products. Factor analytic procedures yielded 11 factors with alpha reliabilities ranging from .72 to .95. The analysis allowed examination of the content and construct validity for the instrument. The article concludes with practical classroom applications for the expression style inventory in talent development programs such as those based on the *Schoolwide Enrichment Model* (Renzulli & Reis, 1985).

Each product humans create embodies the forms of thinking that led to its realization, each one of them provides testimony to what humans can achieve, each one represents a silent but eloquent statement concerning the scope and possibilities of the human mind. (Eisner, 1997, p. 349)

Throughout the centuries, products of imagination and thought have created, and are created by, culture. Conveying information, solving problems, evoking emotion, and creating beauty—they enrich human lives and allow each generation to benefit from an ever-increasing culmination of creative productivity. Authentic forms of representation have evolved as the structure and purpose of the disciplines has been defined. Writers write and dancers dance using specialized symbol systems that enable products to flourish beyond the minds of their creators. Eisner (1997) suggests that the forms or symbol systems we use to represent what we think have an impact on how we think and what we can think about. Therefore, the shape and capacity of young minds are influenced by the richness of forms of representation they are allowed to explore.

My Way ... An Expression Style Inventory (Appendix) was developed to gather information on the types of products that students prefer to create. Teachers can use the instrument to help young people understand that, like practicing professionals, they are faced with the selection of a mode of communication which will affect their ability to influence their audience. *My Way ... An Expression Style Inventory* also serves as a reminder of the diversity of forms of representation to be explored and the richness of multicultural dimensions and contributions to creative productivity. In this instrument, students indicate their interest in creating potential products and develop a profile of their preferences for specific types of products. *My Way ... An Expression Style Inventory* is one of a group of instruments, originating with the *Interest-A-Lyzer* (Renzulli, 1977), which have been designed to help educators determine and describe student strengths and interests within the framework

PUTTING THE RESEARCH TO USE

Creative productivity must be shared in order to be appreciated by the culture that fostered it. Professionals and students seek appropriate symbol systems to represent the products of their minds. Each mode of expression, the written word, music, film, service, drama, presents a unique way to capture and share thought and emotion. *My Way. . . An Expression Style Instrument* was designed to allow the exploration of students' preferences for creating potential products. The information obtained can be used to build on strengths and make informed educational decisions about subsequent activities that capitalize on positive reactions. Understanding personal expression style preferences can facilitate the development of technical skills, maximize impact on future audiences, and provide students with pleasurable experiences in creative productivity.

Abilities	Interests	Style Preferences			
Maximum Performance Indicators	Interest Areas	Instructional Styles Preferences	Learning Environment Preferences	Thinking Styles Preferences	Expression Styles Preferences
Tests ✓ Standardized ✓ Teacher-Made Course Grades Teacher Ratings Product Evaluation ✓ Written ✓ Oral ✓ Visual ✓ Musical ✓ Constructed (Note differences between assigned and self-selected products) Level of Participation in Learning Activities Degree of Interaction with Others	Fine Arts Crafts Literary Historical Mathematical/Logical Physical Sciences Life Sciences Political/Judicial Athletic/Recreation Marketing/Business Drama/Dance Musical Performance Musical Composition Managerial/Business Photography Film/Video Computers Other (Specify)	Recitation and Drill Peer Tutoring Lecture Lecture/Discussion Discussion Guided Independent Study* Learning/Interest Center Simulation, Role Playing, Dramatization, Guided Fantasy Learning Games Replicative Reports or Projects* Investigative Reports or Projects* Unguided Independent Study* Internship* Apprenticeship* *With or without a mentor	Inter/Intra Personal ✓ Self-Oriented ✓ Peer-Oriented ✓ Adult-Oriented ✓ Combined Physical ✓ Sound ✓ Heat ✓ Light ✓ Design ✓ Mobility ✓ Time of Day ✓ Food Intake ✓ Seating	Analytic (School Smart) Synthetic/Creative (Creative, Inventive) Practical/Contextual (Street Smart) Legislative Executive Judicial	Written Oral Manipulative Discussion Display Dramatization Artistic Graphic Commercial Service

Figure 1: The Total Talent Portfolio (Renzulli, 1994)

of the Schoolwide Enrichment Model (Renzulli & Reis, 1985). A brief overview of this model provides the theoretical rationale for the development of this instrument.

The Schoolwide Enrichment Model (SEM) is a programming approach which includes a systematic set of strategies to integrate advanced level learning experiences and higher order thinking skills into the curriculum. Its purpose is to increase student effort, interest, and performance. The model revolves around providing opportunities and support for students to assume the roles of young practicing professionals by using the authentic methodology of a discipline to investigate real problems and communicate their findings to appropriate audiences. This research-based plan is designed for general education, but has been developed from a wide range of instructional methods and curricular practices that originated in programs for gifted and high achieving students. The SEM contains a number of interacting dimensions that allow it to be both a detailed and a flexible blueprint for total school improvement (Renzulli & Reis, 1994).

A major goal of the SEM is to provide educators with strategies to develop the talent potential of young people. This is accomplished by systematically assessing student strengths; providing enrichment opportunities, resources, and services to develop their strengths; and using a flexible approach to curricular differentiation and the use of school time. Student interests and learning style preferences are considered, as well as their academic, athletic, and artistic abilities. One of three service delivery components of the SEM is the Total Talent Portfolio (TTP). The TTP is used as a vehicle for gathering, organizing, and using information about student strengths in three categories: abilities, interests, and style preferences. The major dimensions of the portfolio and the items that guide data gathering within each dimension are presented in Figure 1. Information gathered in the TTP is used to help educators capitalize on student performance by: (a) providing opportunities for participation in a broad range of activities within and across interest areas; (b) observing and documenting performance, satisfaction, and enthusiasm; and (c) making decisions about subsequent activities that capitalize on positive reactions to previous experiences (Renzulli, 1994). The importance of providing

continuous educational experiences was described by John Dewey (1938) in *Education and Experience*. He suggested that knowledge, skills, and values learned in one situation become the instruments for dealing with novel situations. For this reason, Dewey concluded that the likes and dislikes that learners develop from an experience are often more important than the skills and knowledge the activity was designed to teach. These attitudes determine the individual's willingness to interact with the material again. This work adds to the theoretical foundation that suggests the Total Talent Portfolio is an appropriate way to systematically assess and develop talent in young people.

One of the major assumptions underlying the SEM is that respect for the individual learner must take into consideration how the student would like to pursue a particular activity (Renzulli, 1994). This does not mean complete freedom of choice for all activities. Schools should encourage students to explore and develop competency using the authentic methodologies of the disciplines and a rich variety of the forms of representation available in the culture. Without this exposure, students cannot develop the self-awareness and self-discipline required to construct the optimum conditions they need to engage in intellectual and creative risks. The theory of "flow" (Csikszentmihalyi, 1990), developed in part from studies of the creative lives of artists, athletes, chess masters, and surgeons, describes this state of optimal experience in which people perform at the peak of their abilities and are so absorbed in an activity that nothing else seems to matter. Csikzentmihalyi suggests that optimal experiences usually occur when a person is stretched to his or her limits in a voluntary effort to accomplish something difficult and worthwhile. Respect for the individual learner means that students should have the opportunity to indulge their interests and select some activities that develop their preferred modes of learning and expression. A number of studies and theories have illustrated that positive effects on cognitive outcomes occur when students are matched with specific learning environments (Hunt, 1971; McCarthy, 1980; Smith, 1976). For these reasons, the TTP contains a series of indicators of student preferences for learning, including: instructional styles, learning environment preferences, thinking styles, and expression styles (Renzulli, 1994). The focus of this article is on the expression styles component of the Schoolwide Enrichment Model in general and the Total Talent Portfolio in particular.

Method

Instrument Development

Expression style preferences deal with the ways in which people prefer to share their creative productivity with others. Preferences may be oriented toward developing specific products or engaging in specific leadership situations. Some special subject areas such as art, music, technical studies, and physical education are based on expression styles authentic to the individual discipline; but despite a wide variety of alternatives, most classroom activities depend on written, computational, or oral expression. Eisner (1997) cogently argues that the forms of representation that an institution emphasizes influence who succeeds and who does not. If the primary focus is on the use of language and the calculation of numbers, then students whose aptitudes or out-of-school experience include these skills are advantaged. If the school's curricular agenda is diverse, then educational equity is promoted through a range of activities where diverse aptitudes and experiences can lead a child to success. An awareness of the multitude of potential products and the preferences of young people can produce a greater variety of ways in which students can express themselves. Solomon (1997) suggests that different symbolic forms of representation address distinct aspects of the world and, thus, each form of representation provides children with the opportunity to learn something unique. Knowledge from a history unit could culminate through essays; oral presentations; debates; role-play simulations; the development of a board game, timeline, or photography exhibit; the creation of artwork or computer software; or the production of a video or TV show. A knowledge of expression style preferences can be a valuable tool for organizing cooperative learning and project groups. Flexible groups for complex projects, such as the production of a school magazine or environmental action campaign, could be established by dividing tasks based on style preferences rather than in a random manner (Renzulli, 1994).

My Way ... An Expression Style Inventory was designed to assess how interested students are in developing different types of products. The importance of interest has been described throughout the history of education. Dewey (1913), Thorndike (1935), and Piaget (1981) discussed the importance of interest and its energizing role in all forms of learning. Gruber (1986) described interests and personal activities as the main forces in the self-construction of human extraordinariness. Empirical studies have demon-

Table 1

Expression Style Inventory Items, Factors/Components and Loadings: Principal Factor Analysis (PFA) with Varimax & Oblique Rotations Principal Component Analysis (PCA) with Varimax & Oblique Rotations

Item Number	Item Stem	PFA Varimax Loading	PCA Varimax Loading	PFA Oblique Loading	PCA Oblique Loading
Computer Products					
14	designing an interactive computer project	.86	.61	.89	.89
34	designing a computer game	.84	.85	.88	.89
4	designing a computer software program	.84	.84	.88	.89
44	designing a multi-media computer show	.82	.82	.82	.83
54	designing information for the computer internet	.80	.84	.83	.85
24	designing computer animation	.79	.80	.81	.84
Service Products					
57	working to help others	.81	.77	.85	.84
47	collecting clothing or food to help others	.78	.79	.83	.84
37	helping others by fund raising	.71	.74	.73	.78
7	helping in the community	.70	.49	.73	.78
27	helping others by supporting a social cause	.69	.73	.68	.72
17	helping other students	.67	.70	.67	.72
Artistic Products					
3	painting a picture	.75	.80	.80	.84
13	drawing pictures for a book	.74	.80	.78	.84
23	making a clay sculpture of a character	.73	.77	.74	.77
33	painting a mural	.73	.76	.75	.78
43	making a clay sculpture of a scene	.72	.75	.70	.73
53	drawing a comic strip	.57	.59	.56	.64
Musical Products					
30	playing a musical instrument	.83	.87	.88	.90
40	playing in a band	.79	.87	.83	.90
50	performing or writing music	.48	.56	.43	.56
Audio-Visual Products					
15	filming & editing a television show	.77	.65	.83	.80
55	filming & editing a movie	.74	.71	.82	.81
5	filming & editing a video	.71	.70	.79	.82
35	recording & editing a radio show	.63	.59	.65	.71
45	selecting slides & music for a slide show	.39	.47	.36	.49
25	taking & displaying photographs	.34	.54	.31	.46
Written Products					
31	writing an essay	.69	.76	.67	.71
51	writing a report	.65	.75	.62	.67
1	writing stories	.59	.69	.60	.71
11	writing for a newspaper	.59	.66	.59	.65
21	writing for a magazine	.58	.61	.58	.64
41	writing for a journal	.55	.61	.49	.56
Dramatization Products					
28	acting out a story	.80	.78	.85	.82
38	performing a skit	.79	.78	.85	.83
8	acting in a play	.75	.72	.80	.82
58	role-playing a character	.74	.76	.77	.80
18	acting out an event	.68	.68	.68	.71
12	talking to an audience	.44	.47	.36	.43
48	performing a mime	.43	.59	.39	.45
Commercial Products					
26	marketing a product	.68	.65	.75	.77
36	marketing an idea	.66	.65	.71	.74
16	operating a business	.64	.71	.71	.81
56	creating a company	.62	.70	.65	.72
46	managing investments	.56	.56	.59	.67
6	operating a school store	.33	.36	.29	.36
Oral Products					
32	discussing my research	.70	.65	.72	.72
52	discussing ideas	.64	.67	.66	.70
22	talking about my project	.62	.61	.63	.67
2	discussing what I have learned	.61	.59	.65	.77
42	talking about my experiences	.57	.66	.59	.67
Manipulative Products					
39	constructing a working model	.67	.69	.72	.71
59	building a project	.64	.68	.69	.70
29	repairing a machine	.62	.68	.69	.75
9	building an invention	.57	.47	.59	.62
49	assembling a kit	.55	.68	.61	.72
19	conducting an experiment	.52	.63	.53	.62
Vocal Music Products					
20	singing a rap or chant	.69	.65	.52	.80
10	performing a song	.48	.67	.76	.65
60	singing in a choir	.48	.65	.53	.50
50	performing or writing music				.45

strated the relationship between interests and learning (Krapp, 1989; Renninger, 1989; Schiefele, 1989). A research study by Hébert (1993) reported that the best indicator of the selection of college majors and the

expression of career choices on the parts of young adults was their intensive involvement in projects based on early interests. Interest was selected as the basis for the development of an expression style inventory because it provides a measure of how willing students are to create a specific kind of product, regardless of whether or not they currently have the procedural knowledge to successfully complete the project. Therefore, the development of technical expertise becomes a natural step in the creation of an interesting product. If students prefer creating a specific type of product, their interest may serve to motivate them to higher levels of productivity and learning.

Content Validity

According to Cronbach (Gable & Wolf, 1993), content validity is assessed by answering the question: To what extent do the items on a measuring instrument adequately sample from the intended universe of content? The evidence for content validity is judgmental in nature and was collected in a series of stages prior to piloting the instrument.

Based on a review of literature, 90 statements were developed to measure the 10 expression style categories outlined in the Total Talent Portfolio (see Figure 1). Initially, a panel of 12 experts from the field of educational psychology and gifted education individually completed a four-page rating form with the 90 items. The items for each category were randomly placed throughout the form. The expert judges were provided with the category definitions and asked to rate each item twice. First, they were asked to identify the category that they believed the item represented, and second, to identify how certain they were that they had placed the item in the correct category. The results of this content validity process were discussed and led to revisions and clarification within and among the categories, their operational definitions, and individual items. The instrument was shortened to 60 items. Three categories (Computer Products, Audio-Visual Products, and Musical Products) were added to better represent the universe of potential products, while three categories (Discussion, Displays, and Graphics) were omitted because of difficulties in creating discrete operational definitions.

A second judgmental rating exercise was carried out with a panel of experts consisting of 10 middle and high school teachers. They were provided with the modified category definitions and asked to rate each of the items that would appear on the experimental expression style inventory. First, they were asked to identify the category that they believed the item represented, and second, to identify how certain they were that they had placed the item in the correct category. The categories were as follows: Written Products, Oral Products, Artistic Products, Manipulative Products, Commercial Products, Computer Technology, Service Products, Dramatization Products, Audio-visual Products, and Musical Products. While all of the items rated by this panel of experts appeared in the pilot of the instrument, selection percentages, confidence ratings, and comments written on the expert rating forms were taken into consideration during the selection of items for the final draft of the instrument. The selection criteria for the final draft was set at 70% and a mean confidence score of at least 2.

Results

Piloting The Instrument

The resulting instrument was piloted with the assistance of the Collaborative School Districts of the National Research Center on the Gifted and Talented. Forty-five school districts, representing 24 states, responded to the invitation to participate in this study. The sample consisted of 3,532 students which provided a subject-to-item ratio that greatly exceeded the 10:1 minimum ratio recommended for factor analysis. The surveys were completed by students representing grades 6 (32%), 7 (28%), 8 (25%), and 9 (15%). Fifty-four percent of the students were female and 46% were male. Students were asked to indicate their ethnicity on the survey. The majority of the students were Caucasian (80%). The sample also included students who were African American (5%), Hispanic American (6%), Asian American (3%), Native American (2%), and of other heritage (3%). One percent of the students did not indicate their ethnicity. Thirty-one percent of the students attended schools in urban districts, 33% in suburban, 27% in rural, and 9% were from regions described as a combination of suburban and rural settings. The surveys were administered by classroom teachers who received a common set of directions to standardize administration.

Construct Validity

Exploratory factor analysis was used for an initial examination of construct validity. The subject-to-item ratio exceeded the 10:1 ratio recommended for factor analysis. The analysis was conducted on a Macintosh computer using SPSS® software. Principal factor

Table 2

Summary of Means, Standard Deviations, Correlations with the Factor, Estimated Alpha Reliabilities If the Item is Deleted, and Estimated Factor Reliabilities for the Expression Style Inventory

Factor	Item	Mean	Standard Deviation	Correlation with Remaining Items Defining the Factor	Alpha Reliability If Item Deleted	Alpha Reliability for Factor
Computer Products (N=3482)	14	3.22	1.48	.87	.94	.95
	34	3.59	1.47	.85	.94	
	4	3.30	1.45	.85	.94	
	54	3.25	1.53	.83	.94	
	24*	3.61	1.40	.82	.94	
	44	3.17	1.51	.86	.94	
Service Products (N=3474)	57	3.32	1.28	.85	.89	.92
	47	3.27	1.29	.80	.90	
	37	3.11	1.28	.75	.91	
	7	3.26	1.15	.74	.91	
	27	3.03	1.25	.76	.91	
	17*	3.36	1.16	.73	.91	
Dramatization Products (N=3460)	28	2.96	1.42	.86	.89	.91
	38	3.06	1.44	.83	.89	
	8	3.36	1.41	.78	.89	
	58	3.22	1.47	.78	.89	
	18	3.07	1.32	.77	.89	
	12*	2.63	1.32	.55	.91	
	48*	2.41	1.43	.54	.92	
Artistic Products (N=3475)	3	3.36	1.31	.71	.87	.89
	13	3.07	1.41	.73	.87	
	23	3.30	1.43	.74	.87	
	33	3.10	1.46	.73	.87	
	43	2.90	1.46	.75	.86	
	53*	3.16	1.41	.59	.89	
Audio/Visual Products (N=3484)	15	3.64	1.32	.78	.83	.87
	55	3.67	1.41	.76	.83	
	5	3.71	1.25	.73	.84	
	35	3.44	1.39	.72	.84	
	45	2.94	1.39	.57	.87	
	25*	3.50	1.29	.50	.88	
Written Products (N=3463)	31	2.00	1.17	.69	.83	.86
	1	2.99	1.23	.61	.84	
	51	2.02	1.17	.66	.84	
	11	2.78	1.29	.66	.83	
	21	2.94	1.31	.64	.84	
	41*	2.40	1.32	.65	.84	
Commercial Products (N=3471)	16	3.44	1.27	.68	.83	.86
	26	3.04	1.26	.73	.82	
	36	2.86	1.30	.72	.82	
	56	3.29	1.35	.71	.83	
	46	2.62	1.33	.64	.84	
	6*	3.17	1.39	.45	.88	
Oral Products (N=3468)	2	2.46	1.09	.60	.81	.84
	32	2.14	1.12	.70	.78	
	52	2.44	1.21	.72	.77	
	22	2.63	1.32	.50	.83	
	42	2.65	1.31	.65	.79	
Manipulative Products (N=3443)	29	2.83	1.40	.61	.85	.86
	39	3.20	1.35	.74	.82	
	59	3.19	1.32	.69	.83	
	49	2.83	1.31	.59	.85	
	9	3.43	1.28	.67	.83	
	19*	3.48	1.24	.62	.84	
Musical Products (N=3499)	30	3.27	1.52	.74	.70	.83
	40	3.00	1.55	.74	.71	
	50	3.07	1.52	.58	.86	
Vocal Music Products (N=3501)	20*	2.35	1.38	.45	.74	.72
	10*	2.61	1.44	.64	.53	
	60*	2.60	1.59	.56	.62	

* Items eliminated from the final draft of the expression style instrument.

analysis (PFA) and principal component analysis (PCA) were run. A review of the resulting output indicated that there was very little difference in the factor and component structures identified by the two analyses. Both analyses produced 11 factors or components with Eigenvalues >1 in the final statistics tables which were then sent to varimax and oblique rotations. Table 1 names the factors and components, the items that comprise them, and the item loadings for both the varimax and oblique rotations. An inspection of these data leads to a number of interesting observations. While the loading values between the varimax (correlation coefficients) and the oblique (regression weights) cannot be directly compared, it is interesting to note that, while some of the items were rearranged within the factors or components, the overall structure remained the same. Indeed, the overall organization of the items into factors and components is strikingly similar to the original categories that were proposed. The students in the sample have indicated that the items originally belonging to the category of Musical Products should be split into two factors or components. The students also connected the item, "talking to an audience" to the items that dealt with drama rather than to the oral products. This may be due to the use of the word, "audience," which is commonly used in the context of theater productions. Due to the similarity, the remainder of this report will be limited to a discussion of the PFA varimax rotation.

Alpha Reliability

The alpha internal consistency reliability was estimated for each of the factors using SPSS®. The values for the scales ranged from .95 to .72 and are displayed in Table 2. The reliability of a set of items is affected by the characteristics of the sample, the homogeneity of the item content, the number of items, and the response format (Gable & Wolf, 1993). At this stage in the development of the instrument, reliability information was used to help evaluate individual items. It was decided that shortening the instrument to 10 factors and 50 items would make it faster for students to complete and still maintain high alpha reliability values for each scale. Together with the selection criteria from the content validity stage of analysis, the alpha reliability data were used to select items which could be eliminated from the final draft of the instrument. These items are indicated in Table 2.

Two factors conceptually involved musical products. An inspection of the Factor Correlation Matrix that accompanied the oblique rotation demonstrated that these two factors did not have an intercorrelation over .40; therefore, collapsing them was not considered an option. To avoid confusion on the final draft of the instrument, the factor named "Musical Products" was retained because it had a higher alpha reliability and the factor named "Vocal Music Products" was removed. In order to maintain the balance of five items per component, one of the items, "performing or writing music" was modified into two items, "performing music" and "composing music," and a final item, "playing in an orchestra," was added. Inspection of the Factor Correlation Matrix that accompanied the oblique rotation indicated several intercorrelations greater than .40 between other factors. These factors were not collapsed because they were individually reliable and conceptually meaningful. The resulting instrument, *My Way ... An Expression Style Inventory*, was shortened to 50 items and enables students to score their own survey to develop an expression style profile on 10 scales.

Discussion

My Way ... An Expression Style Inventory was developed as an instrument to enable teachers to gather information on the types of products that students are interested in creating. Before administering the expression style inventory, it is important to consider how the information regarding expression styles will be used. Students are more comfortable answering questions if they know in advance the impact their honesty will have on their activities and assessment. Information gathered on expression style preferences can be used by educators to enhance student performance by: (a) providing opportunities for participation in a broad range of activities within and across interest areas; (b) observing and documenting performance, satisfaction, and enthusiasm; and (c) making decisions about subsequent activities that capitalize on positive reactions. This is a dynamic process as interests change over time and expression style preferences cannot be considered permanent.

A variety of activities may be used after the completion of *My Way ... An Expression Style Inventory* to help students understand that all expression style preferences are valued. For example students may:

- make visual expression style profiles by creating bar graphs of their scores
- research the types of products created by professionals that share their expression style preference
- interview each other about their preferences

- discuss their product preferences with community members who are skilled at creating products of interest
- design a bulletin board display of products they are interested in creating and have each student sign his or her name to the two categories where he or she has the most interest
- work with others in their interest areas to brainstorm a list of products that they would like to produce.

It is not only important to use the information gathered from *My Way ... An Expression Style Inventory*, it is important to draw student attention to its use. Individuals face decisions regarding creative productivity and audience impact throughout their lives. Educators can help students understand their personal expression style preferences, develop their technical skills, and maximize the impact they will have on future audiences. If interests and personal activities are the main forces in the self-construction of human extraordinariness (Gruber, 1986), and if individuals can learn to transform jobs into flow-producing experiences (Csikszentmihalyi, 1990), then the knowledge that students gain concerning their preferences for specific forms of representation may have as much impact on their future productivity as their content area interests. A variety of situations exist in which information on expression style preferences may be useful. In enrichment programs based on the *Schoolwide Enrichment Model* (Renzulli & Reis, 1985), this information can be applied to all three types of enrichment: general exploratory activities, group training activities, and investigations of real problems.

General Exploratory Activities (Type I)

Students' interests may be limited by their experiences. General exploratory activities aimed at expression style are designed to bring the learner in touch with numerous possibilities in product development and to help them to decide if they would like to develop their technical skills in a particular area. For example, within the category of Artistic Products, students may investigate many different kinds of media, styles, and techniques from Impressionist painting to the creation of traditional Native American ceremonial masks. Guest speakers, demonstrations, films, field trips, interest centers, internet searches, job shadowing, and student products, can all be used as invitations to explore the creation of new ways to share products of mind with an audience. The interests identified by the survey can be used to make informed decisions about the kind of general exploratory activities that should be offered and the selection of students for each presentation.

Group Training Activities (Type II)

Students may be interested in creating certain products to communicate their ideas to an audience, but lack the technical skills to accomplish this goal. Limited expression skills often restrict students to doing what they know how to do rather than what they would like to try, especially if the evaluation "stakes" are high. The class or school results from *My Way ... An Expression Style Inventory* can be used to plan a series of seminars or mini-courses that teach students how to create certain products. There are also a large number of technical, "How-to," books on the market, at a variety of reading levels, that provide detailed instructions on the creation of products. Schack (1988) suggests that the most useful "How-to" books contain information on a number of the following areas: the structure of the field, procedures for problem finding and focusing, specific methodological skills, suggestions for independent student investigations, and suggestions for products to communicate findings. These books can usually be identified by their titles. Books with titles like, *Writing Your Own Plays* (Korty, 1989), *Kid Vid: Fundamentals of Video Production* (Black, 1989), *Chi Square, Pie-Charts and Me* (Baum, Gable, & List, 1987), or *The Kid's Guide to Service Projects* (Lewis, 1995) provide students and teachers with "mentors in print" to coach them through independent investigations and product development. The interests identified by the survey can be used to make informed decisions when purchasing "How-to" books on product development for the school library. Providing students with the opportunity and resources to increase their skills in the development of products and the encouragement to transfer their new skills to the classroom produces a supportive environment for creative productivity and may allow students to fall in love with new forms of representation.

Individual and Small Group Investigations of Real Problems (Type III)

One of the major decisions in planning a long-range study or independent investigation is the selection of a product or service that is targeted at a real audience. A sense of audience helps give students a reason to want to escalate the quality of their products by developing more effective ways to communicate the prod-

ucts of their minds to interested others. It provides students with a chance to use the *modus operandi* of practicing professionals whose *raison d'être* is having the greatest possible impact on their audience. Writers hope to influence the thoughts and emotions of their readers, scientists do research to find better ways to contribute new knowledge to their fields, and artists create products to enrich the lives of those who view their works (Renzulli, 1994). *My Way ... An Expression Style Inventory* helps students explore the kinds of products that they are interested in creating and can be a useful tool in this planning process. It not only helps to create a vision of the final product but may also indicate the type of technical training that is required to bring the work to fruition. If students are interested in both the content of their investigation and the form of representation they are creating, there is a greater chance that they will remain committed to completing the task.

Enrichment Clusters

In *Schools for Talent Development,* Renzulli (1994) proposes an additional format for enrichment teaching and learning. Enrichment clusters are non-graded groups of students who share common interests, and who come together during specially designated time blocks to pursue these interests. The best way to visualize this interaction is to picture a research laboratory, a small business organization, or a theater production company that functions for a couple of hours each week on the same afternoon. The operation of these organizations is different from traditional classroom routines for a number of reasons: (a) members have selected to belong to the organization and share a common interest and purpose that binds the group together; (b) this sense of purpose is directed toward the production of an authentic product or the delivery of a service for a targeted audience; and (c) there is a division of labor and everyone contributes in his or her area of specialization. Therefore, the group is connected by a common purpose. The uniqueness of each person's specialty is valued for the contribution it makes to the overall enterprise. For example, the production of a play requires a written script, dramatic actors and actresses, a business department, the building of sets, and much more. The self-understanding that comes from completing *My Way ... An Expression Style Inventory* helps students select their individual role in the enrichment cluster, enabling the teacher to group them in meaningful ways. Much of the success of enrichment clusters comes from the belief that each student is special if he or she is a specialist in a specialized group.

Conclusions

This article provides information concerning an expression style inventory developed within the theoretical framework of the Schoolwide Enrichment Model (Renzulli & Reis, 1985) and the Total Talent Portfolio (Renzulli, 1994). The resulting instrument, *My Way ... An Expression Style Inventory*, includes 50 items that students can use to determine their personal expression style profile on 10 different scales. It allows teachers to systematically gather information about student expression style preferences and use this knowledge to enhance enrichment teaching and learning. The resulting consideration of expression styles opens the door to far reaching questions: What makes a specific form of representation interesting and pleasurable to a child? How does the quality of product development being interesting affect creativity and task commitment? Do young people like to express themselves using the same forms of representation they prefer to use in learning? How do the symbol systems children experience expand their view of the world? What role do expression style preferences play in the selection of careers or outlets for adult productivity? What synergy occurs among the selection of content, symbol system, and audience that transforms a product of mind into a significant contribution to culture? For Eisner (1997), equity of opportunity does not reside in a common program for all, but in a school program that makes it possible for students to follow their bliss, to pursue their interests, and develop what they are good at doing. If schools are truly places for talent development, attention must be given to students acquiring and refining the skills they desire to express their creative productivity.

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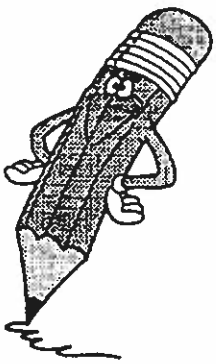
Appendix



My Way ...

An Expression Style Inventory

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Products provide students and professionals with a way to express what they have learned to an audience. This survey will help determine the kinds of products YOU are interested in creating.

My Name is: _____

Instructions:
Read each statement and circle the number that shows to what extent YOU are interested in creating that type of product. (Do not worry if you are unsure of how to make the product.)

		Not At All Interested	Of Little Interest	Moderately Interested	Interested	Very Interested
	Example: writing song lyrics	1	2	3	(4)	5
1.	writing stories	1	2	3	4	5
2.	discussing what I have learned	1	2	3	4	5
3.	painting a picture	1	2	3	4	5
4.	designing a computer software project	1	2	3	4	5
5.	filming & editing a video	1	2	3	4	5
6.	creating a company	1	2	3	4	5
7.	helping in the community	1	2	3	4	5
8.	acting in a play	1	2	3	4	5

My Way ...

An Expression Style Inventory

		Not At All Interested	Of Little Interest	Moderately Interested	Interested	Very Interested
9.	building an invention	1	2	3	4	5
10.	playing a musical instrument	1	2	3	4	5
11.	writing for a newspaper	1	2	3	4	5
12.	discussing ideas	1	2	3	4	5
13.	drawing pictures for a book	1	2	3	4	5
14.	designing an interactive computer project	1	2	3	4	5
15.	filming & editing a television show	1	2	3	4	5
16.	operating a business	1	2	3	4	5
17.	working to help others	1	2	3	4	5
18.	acting out an event	1	2	3	4	5
19.	building a project	1	2	3	4	5
20.	playing in a band	1	2	3	4	5
21.	writing for a magasine	1	2	3	4	5
22.	talking about my project	1	2	3	4	5
23.	making a clay sculpture of a character	1	2	3	4	5

		Not At All Interested	Of Little Interest	Moderately Interested	Interested	Very Interested
24.	designing information for the computer internet	1	2	3	4	5
25.	filming & editing a movie	1	2	3	4	5
26.	marketing a product	1	2	3	4	5
27.	helping others by supporting a social cause	1	2	3	4	5
28.	acting out a story	1	2	3	4	5
29.	repairing a machine	1	2	3	4	5
30.	composing music	1	2	3	4	5
31.	writing an essay	1	2	3	4	5
32.	discussing my research	1	2	3	4	5
33.	painting a mural	1	2	3	4	5
34.	designing a computer game	1	2	3	4	5
35.	recording & editing a radio show	1	2	3	4	5
36.	marketing an idea	1	2	3	4	5
37.	helping others by fundraising	1	2	3	4	5
38.	performing a skit	1	2	3	4	5
39.	constructing a working model	1	2	3	4	5
40.	performing music	1	2	3	4	5
41.	writing a report	1	2	3	4	5
42.	talking about my experiences	1	2	3	4	5

		Not At All Interested	Of Little Interest	Moderately Interested	Interested	Very Interested
43.	making a clay sculpture of a scene	1	2	3	4	5
44.	designing a multi-media computer show	1	2	3	4	5
45.	selecting slides & music for a slide show	1	2	3	4	5
46.	managing investments	1	2	3	4	5
47.	collecting clothing or food to help others	1	2	3	4	5
48.	role-playing a character	1	2	3	4	5
49.	assembling a kit	1	2	3	4	5
50.	playing in an orchestra	1	2	3	4	5

The End

My Way... A Profile

Instructions: Write your score beside each number. Add each ROW to determine YOUR expression style profile.

Products						Total
Written	1. ____	11. ____	21. ____	31. ____	41. ____	_____
Oral	2. ____	12. ____	22. ____	32. ____	42. ____	_____
Artistic	3. ____	13. ____	23. ____	33. ____	43. ____	_____
Computer	4. ____	14. ____	24. ____	34. ____	44. ____	_____
Audio/Visual	5. ____	15. ____	25. ____	35. ____	45. ____	_____
Commercial	6. ____	16. ____	26. ____	36. ____	46. ____	_____
Service	7. ____	17. ____	27. ____	37. ____	47. ____	_____
Dramatization	8. ____	18. ____	28. ____	38. ____	48. ____	_____
Manipulative	9. ____	19. ____	29. ____	39. ____	49. ____	_____
Musical	10. ____	20. ____	30. ____	40. ____	50. ____	_____