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ABSTRACT

This report presents the Self-Directed Career program, an inexpensive program designed to provide vocational guidance to all high school students, college students, and adults who desire it. The report discusses the need for such a program, the costs involved, the materials required, and how to use them. Appendix A provides some of the basic and supplementary materials, plus source information for other materials. Appendix B provides suggestions for evaluation techniques that counselors can apply to evaluate the success of the program. (Author)

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A GUIDE TO THE SELF-DIRECTED CAREER PROGRAM: A PRACTICAL AND INEXPENSIVE VOCATIONAL GUIDANCE SYSTEM.

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Introductory Statement

The purpose of the Careers and Curricula program of the Center for Social Organization of Schools is to explain and organize our knowledge of vocational behavior by exploring a theory of careers, and to create vocational devices, plans and systems to help people adapt more successfully to vocational problems. The theory has been strengthened by more than 60 empirical tests and has led to some useful, practical applications.

The Self-Directed Career program (SDC), is the latest of the practical applications developed from the theory. The purpose of this Guide is to briefly explain the SDC (see pp. 1-7) and then to provide supplementary materials (Appendices A and B) that will allow the counselor to integrate various guidance tools -- many of which he may already be using -- into the SDC program.

Abstract

This report presents the Self-Directed Career program, an inexpensive program designed to provide vocational guidance to all high school students, college students, and adults who desire it. The report discusses the need for such a program, the costs involved, the materials required, and how to use them. Appendix A provides some of the basic and supplementary materials, plus source information for other materials. Appendix B provides suggestions for evaluation techniques that counselors can apply to evaluate the success of the program.

Introduction

The main purpose of this report is to present the Self-Directed Career program (SDC) -- an inexpensive, flexible vocational guidance system for use with people aged 15 to 50. At the same time, we hope that this publication will accomplish two closely related tasks: (1) give guidance workers an opportunity to integrate the SDC program with their own resources, and (2) stimulate guidance workers to perform evaluations of the SDC program.

Some of the materials needed to operate this program are in the appendix; the rest can be purchased directly from the publishers. Initially, we had hoped to offer a single, finished program, but our first experiences made it clear that the basic plan had too many possible elaborations for us to fully explore and evaluate. A more useful approach would be to encourage people to use the basic plan and to create what revisions and elaborations their imagination and resources might dictate. Later, we will poll users for the most successful variations or additions to the basic program, and obtain advice about procedural revisions.

The following sections summarize the SDC program: the need for such a program, the materials required, the processes a person goes through, the supplementation, and the costs of the system.

The Need

As always, there are not enough counselors to provide vocational guidance for all, and it is unlikely that sufficient funds for this traditional form of help will ever be available. Also, the major alternatives to traditional vocational counseling possess major weaknesses.

For example, new and old comprehensive test batteries provide massive amounts of information, but they still require a counselor for each student. And the computer-based guidance systems still suffer from serious deficiencies. They are relatively expensive to develop, operate, and modify. Ironically, computer-based systems may have less flexibility than the present paper system.

In short, counselors need a vocational guidance system that will multiply their time and talent so that a single counselor can cope with a large population of students or adults. The extension of vocational help to all who need it must be accomplished at the lowest possible cost in materials, equipment, and training time. And, equally important, any new system should possess a high degree of scientific validity and client-effectiveness. The SDC was developed to meet this need.

The Materials

The Self-Directed Career Program (SDC) is a vocational guidance system designed to provide effective, theoretically-based guidance at low cost and with a minimum expenditure of counselor time. The SDC program consists of the following materials for students:

1. Instruction Sheet -- this sheet explains the program and tells a student how to proceed.
2. SDS Booklet -- the assessment booklet of the Self-Directed Search (SDS) provides a vocational guidance experience that a student undergoes on his own for about one hour.
3. Occupations Finder -- this booklet lists a total of 456 occupations that are coded according to the theoretical system used in the Self-Directed Search (SDS).

4. Checklist -- this list helps a student check the accuracy and validity of his SDS experience.
5. Occupational Outlook Handbook -- this book provides comprehensive descriptions of jobs and careers.

The program requires that one counselor be available for consultation with those students or adults who desire further guidance after undergoing the SDC experience. The minimum resources required by the counselor are the Self-Directed Search manual, Volumes I and II plus Supplements of the DOT, and the present report. Appendix A provides the Viernstein tables, which extend the Occupations Finder to include all occupations in the DOT.

The student materials should be arranged on a table or desk in the order listed above. Depending on need, opportunity and financial resources, one or more layouts could be located in counseling offices, libraries, student study rooms, etc. A sign should identify the system and invite students to use it. Also, a sign-in sheet may be included so that the number of students using the materials can be recorded and so that the system can be monitored and evaluated.

The student's first step is to pick up an instruction sheet. After reading the instructions, he proceeds as follows:

Step 1 -- Takes a copy of the Self-Directed Search and a copy of the Occupations Finder. He reads the instructions on the outside cover of the Self-Directed Search, then begins the guidance experience by filling out the Occupational Daydreams section on page 3. He works through the booklet and computes his summary

code on page 11. This code identifies the characteristics that distinguish his interests, competencies, experience and self-concept. Proceeding to page 13, he is instructed to search the Occupations Finder to see which occupations match his summary code. These are the occupations that are best suited to his particular characteristics. He makes a list of these occupations.

Step 2 -- The student then takes a copy of the sheet titled "Making the SDS Work for You." Using this sheet, he rechecks his work in the assessment booklet, is reminded to search the Occupations Finder for all permutations of his summary code, and is reminded that his list of occupations should number at least five. The student then is instructed to compare his summary code to the code of the occupational choice that he initially made on page 3 of the assessment booklet. If his summary and choice codes match exactly or are reasonably convergent, he proceeds to the next step. If the codes are very divergent, the student is instructed to see his counselor.

Step 3 -- The students whose codes are convergent move to the next step. They look up the occupations they've listed on page 13 of the assessment booklet in the Occupational Outlook Handbook. The Handbook gives them relevant information about the occupations, including a job description, how much training is required, and so on.

That's it. In less than two hours, the student has directed himself through a vocational guidance experience -- identified some desired occupations, assessed his interests, competencies, experiences and self-

concepts, matched these to appropriate occupations, and obtained more information about those occupations. At the same time, those people with more complex vocational problems have been directed to the counselor, and those people who need only more information have been directed to the appropriate information.

Supplementing the System

The SDC is a basic system that can be supplemented in many ways by local resources. The following additions might be linked to the SDC program:

a) Krumboltz Experience Kits. These kits simulate work experience and could be used as another step in career exploration. After reading about his selected occupation in the Occupational Outlook Handbook, the student can use the corresponding Krumboltz kit. The kits contain sample job problems and give a good indication of what the work is like. Also, the kits can be coded to match the summary codes obtained from the Self-Directed Search. (See Appendix A for codes.)

b) Career Planning Manual. The booklet titled Career Planning, by Ronald P. Cosgrave and William W. Dick, may serve as supplemental reading, especially for college-bound students. It may be obtained at $2.50 per copy from the Psychological Services Department, York University, 4700 Keele Street, Downsview, Ontario.

c) Decision-Making Help. For students who are having difficulty in making a vocational decision, the College Entrance Examination Board offers a semi-programmed course entitled Deciding that the counselor may organize and conduct. Copies of Deciding, plus a leader's guide to the

course, can be ordered from CEEB Publications Order Office, Box 592 Princeton, New Jersey, 08540, at $2.50 per copy. Undecided students can also explore their indecision by using 6 Krumboltz kits representing career types. (See Appendix A.)

d) Occupational Files. Counselors can supplement the system by organizing their own occupational files according to the Holland occupational classification in order to coordinate job description information, etc. with the self-directed unit. (The Occupations Finder is the published version of the Holland occupational classification.) Part-time job opportunities or work sample experiences could be organized and coordinated in the same way. Local people in various professions may be induced to visit the school, or accept visits at work from students whose occupational codes correspond with those professions.

The SRA Occupational Exploration Briefs (Grades 9-12) may also be used to supplement the program and can be easily coded to coordinate with the classification. Appendix A provides these codes. Other published materials can be organized in the same way. This particular organizational plan helps a person explore the world of work in terms of his own understanding rather than in terms of atheoretical ad hoc schemes.

In general, any occupational data can now be categorized in Holland's classification so that the entire vocational education and treatment program can be coordinated by a well-studied theory. The benefits of this organizational plan are (1) the theory is easy to apply and understand. (2) The theory allows clients and counselors to work together with a shared conceptual framework. It creates the possibility that the recipients of vocational guidance become "partners" of their counselors instead of "clients," which implies their greater involvement, enthusiasm, and self-direction.

And (3) the classification's construction guarantees its flexibility and improvement. New curricula and new occupations can be added by following a simple procedure. Any new data obtained by the SDC program literally improves the system. For example, the concepts in the system can be defined by any one of the following inventories: The Strong Vocational Interest Blank, the Kuder Preference Record, the Vocational Preference Inventory, or the Self-Directed Search. Consequently, any student or occupational group assessed by these inventories provides new data for the system, and usually at little or no expense to the user. Finally, (4) any researcher who performs experiments to test hypotheses in the theory contributes his findings to the users of those vocational materials, because researchers must use the same set of theoretical concepts and definitions.

Cost

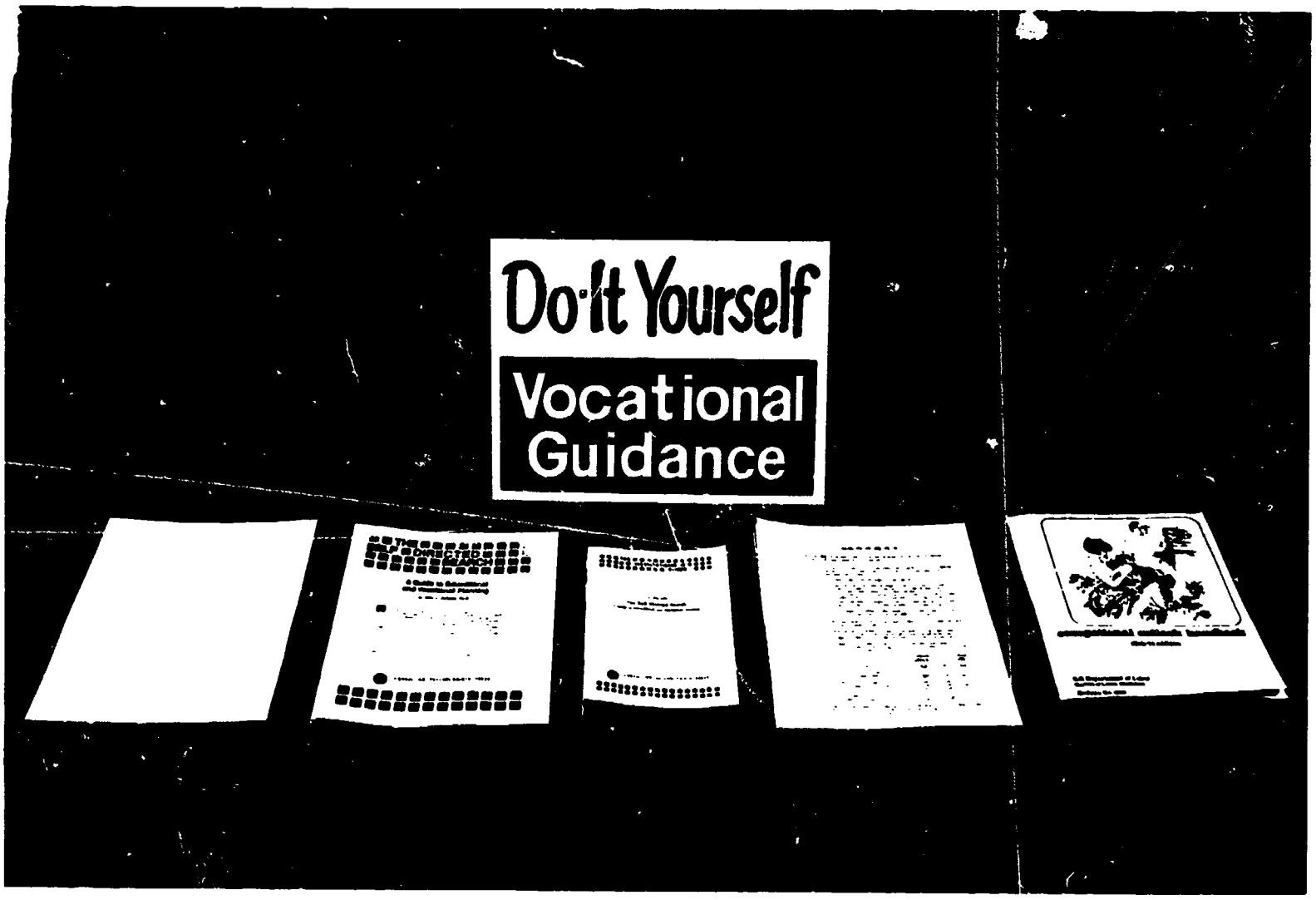
The SDC consists of printed instruction sheets (5¢ each, maximum), SDS assessment booklet and Occupations Finder (60¢ each, bulk order), SDS checklist sheets (5¢ each, maximum) and a supply of Occupational Outlook Handbooks (only one required -- $6.25 each). The system also requires a sign identifying the program for the students ($1.00). Since the program is self-directed and student-scored, no scoring or computer services are involved. The counselor should have an SDS manual ($1.75), DOT Volume and Supplements (most counselors have these). As an example of total estimated costs, providing every student in a 500-member junior class with vocational guidance under the SDC program would cost a total of $359.00, or about 72¢ a student. This estimate does not include the cost of counselor time, nor does it attempt to compute the savings in counselor time as compared to other guidance systems.

Appendix A

SDC Program - Basic And Supplementary Materials

APPENDIX A

This appendix was prepared so that counselors could assemble a Self-Directed Career Program for their institution. The photo below shows how to lay out the basic system on a table or desk. Reading from left to



right are: (1) How to Use the Self-Directed Career Program, (2) The SDS assessment booklet, (3) The Occupations Finder, (4) Making the SDS Work for you, and (5) The Occupational Outlook Handbook.

The instruction sheets (1 and 4 above) may be reproduced by the counselor. They are contained on the next two pages of the Appendix, and may be simply copied directly or retyped and reproduced by mimeograph.

The remaining materials of the basic Self-Directed Career program, plus supplementary materials, can be ordered from the following publishers. If you are in a hurry, ask the publisher to ship the fastest possible way and be prepared to pay the extra shipping costs. Otherwise, you will receive materials very slowly -- usually 3rd class mail.

-- for SDS booklets and Occupations Finders

Consulting Psychologists Press
577 College Avenue
Palo Alto, California 94306

Package of 25	$ 20.00
Package of 100	72.50
Package of 500	300.00
Counselor's Manual	1.75
Specimen Set (Incl. Manual)	2.50

-- for Occupational Outlook Handbook $ 6.25
(1972-73 edition)
Superintendent of Documents
United States Government Printing Office
Washington, D. C. 20402

-- for Occupational Exploration Briefs

	List	Net
Complete set of 400 Occupational Briefs	$120.00	$90.00
1-24 copies, each	.66	.49
25-49 copies, each		.43
50 or more copies, each		.40
500 or more copies, each		.35

-- for Job Experience Kits

		List	Net
5-4000	Job Experience Kits	$173.35	$130.00
5-4005	Complete Set of 20 Answer Sheets	13.35	10.00
5-4225	Specimen Set	4.35	3.25

Science Research Associates, Inc.
259 East Erie Street
Chicago, Illinois 60611

HOW TO USE THE SELF-DIRECTED CAREER PROGRAM

Step 1 Take a copy of the Self-Directed Search and The Occupations Finder. Begin by reading the instructions on the outside cover of the Self Directed Search. Proceed by filling out the Occupational Daydream section on page 3. Work through the booklet and compute your summary code on page 11. Complete pages 13 and 15.

Step 2 Take a copy of the sheet entitled 'Making the SDS Work for You." Work through the four steps listed on the sheet.

Step 3 Look up the occupations you've listed on page 13 of the SDS booklet in the Occupational Outlook Handbook. There is an alphabetical index at the back of the Handbook. The Handbook contains relevant information about a variety of occupations, including a job description, how much training is required, what you would earn, etc.

MAKING THE SDS WORK FOR YOU

For the SDS to be most useful to you, please follow the following instructions and check them off as you go.

_____ 1. If possible, have a friend check your work in the following manner. (If no one else is available, please check your own work very carefully.)

a. Check addition on pages 4 through 8.

b. Reread instructions on page 9 (Self-Estimates) and check to see that you do not have two or more letters with the same number in either graph. If you have any ties, rerate yourself so that you have a different number for each letter. Recompute ratings if necessary.

c. Check graphs on pages 10 and 11. Reread instructions pertaining to ties, and recompute ratings if necessary.

d. Recompute summary code (page 11). Check the accuracy of your multiplication and addition carefully.

_____ 2. Did you search the Occupations Finder for ALL combinations of your summary code?

_____ 3. Did you write down at least five possible occupations? (If you cannot find five occupations listed with your summary code or its combinations, see your counselor.)

_____ 4. Compare the code of your current occupational goal or current job (line 1, page 3) with your summary code using the table below.

		CURRENT CHOICE		SUMMARY CODE
_____	Are they exactly alike? . . .	RIE	and	RIE
_____	Are the first two letters in the same order?	RIA	and	RIS
_____	The first three letters are the same, but are they out of order?	REI	and	IER
		ERI	and	REI
		RIE	and	EIR
_____	Is the first letter in each code the same?	SIA	and	SER

If none of the above matches are true, DO NOT use the Summary Code as a guide to any job choice or educational planning. You would find it more helpful to see your counselor.

- for leader's guide and copies of Deciding ($2.50 per copy)

College Entrance Examinations Board
Publications Order Office
Box 592
Princeton, New Jersey 08540

-- for Career Planning, a manual by Cosgrave and Dick ($2.50)

Psychological Services Department
York University
4700 Keele Street
Downsview, Ontario, Canada

A-3

How to Use Supplementary Materials

The following tables provide codes for the SRA Job Experience Kits and the SRA Occupational Briefs so they can be organized according to the Holland occupational classification.

How to Code the SRA Job Experience Kits

Title of Experience Kit	Holland Code
Accountant	CES
Appliance Serviceman	RIC
Auto Mechanic	RIE
Beautician	SAC
Carpenter	RCI
Designer	AIS
Draftsman	RIE
Electronics Technician	IRE
Elementary School Teacher	SAI
Lawyer	EAS
Librarian	SAI
Medical Technologist	ISA
Motel Manager	SCE
Plumber	RIE
Police Officer	RSF
Salesperson	ESC
Secretary	CSA
Truck Driver	RCE
Veterinarian	IRS
X-Ray Technician (Radiologic Technologist)	IRS

How to Code the SRA Occupational Briefs

The SRA Briefs are shipped in numerical order (1-400). First, use table 1 below to assign Holland codes to each brief. Codes can be hand-lettered on the briefs with a marking pen. Second, arrange the briefs in Holland categories according to table 2. This arrangement results in six major categories with a few subcategories within each major category. Finally, indicate each major category with a file folder or cardboard divider marked R, I, A, S, E, or C. If you don't have file cabinet space, use the SRA shipping box.

Table 1

Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code
1	IRE	26	R--	51	RCS
2	RIE	27	RIC	52	RSE
3	IRE	28	RIE	53	RCS
4	RIE	29	AIR	54	RSI
5	SAE	30	RIE	55	---
6	SEA	31	IRC	56	RAI
7	AIS	32	ISR	57	RCS, RCE
8	AIS	33	RIE	58	RIC
9	EAS	34	ISR	59	R--
10	SAI	35	AIR	60	RIS
11	C--	36	SRE	61	CES
12	CSI	37	IRS	62	AIS
13	R--	38	SAI	63	AIS
14	RCS	39	SAI	64	AIR
15	CSR	40	AIE	65	AIR
16	CIS	41	RIC	66	IRA
17	CRI	42	RES	67	SAI
18	CRE	43	RIC	68	IRE
19	CSA, CIE	44	RIC	69	AIS
20	CSE	45	RIC	70	SIA
21	RIS	46	ECI	71	SIE
22	RCS	47	RIC	72	SEA
23	RCI	48	RIC	73	SRE
24	RCS	49	RES	74	IES
25	RIS	50	RIS	75	IAR

Table 1 (Continued)

Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code
76	SIE	121	R--	165	RIC
77	AES	122	RE-	166	AES
78	S--	123	R--	168	S--
79	ECI	124	R--	169	[illegible]
80	SIA	125	R--	170	[illegible]
81	R--	126	R--	171	R--
82	R--	127	RSE	172	R--
83	R--	128	RES, RSE	173	R--
84	R--	129	R--	174	R--
85	RIE	130	RIE	175	R--
86	RIS	131	IRS	176	R--
87	RCI	132	SEC	177	[illegible]
88	RIE	133	AST	178	R--
89	RIE	134	ESC	179	[illegible]
90	RAI, RIC	135	SRE	180	IRS
91	RSC	136	ISA	181	RIA
92	SRI	137	ISA	182	[illegible]
93	CIE	138	SAI	183	[illegible]
94	C--	139	IRS	184	IRA
95	ESC	140	SEC	185	[illegible]
96	ESC	141	AIR	186	SAI, SRA
97	ECS	142	AIS	187	RCE
98	SCE	143	AIR	188	IRS
99	ESC	144	IRS	189	SAI
100	S--	145	SAI	190	[illegible]
101	R--	146	ISA	191	RI-
102	R--	147	ISR	192	RSE
103	R--	148	SAI	193	RIE
104	RCS, RSE	149	RES	194	RCS
105	R--	150	AES	195	R--
106	R--	151	RIE	196	R--
107	RES	152	RIE	197	[illegible]
108	R--	153	R--	198	[illegible]
109	RSE	154	RCI	199	RIS
110	RSE	155	IRE	200	RIS
111	ESR	156	R--	201	IRE
112	SAC	157	RIC	202	RIC
113	ESC	158	RSE	203	IRA
114	ESC	159	R--	204	IRE
115	RIS	160	R--	205	[illegible]
116	ESC	161	---	206	IRE
117	C--	162	RSE	207	RIE
118	EST	163	E--	208	RIE
119	SAI	164	---	209	[illegible]
120	ESA	165	ESA	210	ECI

Table 1 (Continued)

Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code
211	IRS	256	IRA	301	RIE
212	IAR	257	AES, ESC	302	R--
213	IAR	258	IRA	303	ESR
214	RIS	259	AIR	304	RIC
215	RI-	260	RCI	305	RIE
216	ASE	261	CIE	306	RIE
217	SIR	262	R--	307	R--
218	SAI	263	RCS	308	RSE
219	A--	264	AIR	309	AES
220	RIS	265	SRE	310	IRC
221	R--	266	RES	311	RIE
222	RIE	267	RSE	312	RI-
223	R--	268	R--	313	SCE
224	R--	269	R--	314	RIC
225	R--	270	SE-	315	RI-
226	R--	271	ESC	316	RIE
227	RCS	272	SAI	317	RSE
228	R--	273	RIA	318	IRE
229	R--	274	RSE	319	ESC
230	RCS	275	AIS	320	CSE
231	ERI	276	CRI	321	SIE
232	ER-	277	ESC	322	CER
233	ECS	278	CSE	323	RIE
234	ESI	279	RCI	324	S--
235	SCE	280	EAR	325	ESC
236	SRC	281	ICR	326	SCE
237	ESC	282	IRC	327	RIC
238	SER	283	SEA	328	CRS
239	ESC	284	ECS	329	AEI
240	ESC	285	RIE	330	RIC
241	ISA	286	AIS	331	IAR
242	SRE	287	AIR	332	SR-
243	SIR	288	ISR	333	RIC
244	SEA	289	SIC	334	IRC
245	A--	290	ISC	335	C--
246	SIC	291	A--	336	RSE
247	ISA	292	ESI	337	RCS
248	SCE	293	SIC	338	IES
249	S--	294	IRS	339	ESC
250	RIE	295	AIS	340	RIS
251	IEC	296	AES	341	RSE
252	CIE	297	R--	342	RIE
253	RIE	298	SCE	343	ESC
254	ESI	299	RIE	344	RSE
255	ESC	300	CSE	345	RIE

Table 1 (Continued)

Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code
346	ISC	364	ECS	383	SCE
347	ECS	365	R--	384	ASI
348	RES	366	SAI	385	SIA
349	REI	367	SIA	386	IAR
350	ESC	368	ESC	387	CES
351	CSR	369	E--	388	SIR
352	RIC	370	AIS	389	RIE
353	ESC	371	AIS	390	R--
354	RES	372	ECS	391	SEI
355	AIS	373	CIE	392	IRA
356	CSE	374	ASE	393	SCE
357	ESI	375	ISA	394	SIA
358	SAI	376	IRS	395	EAS
359	RIE	377	SEI	396	ASI
360	RIE	378	SER	397	IRE
361	AIS	379	ISA	398	AIS
362	RSC	380	IRS	399	AIS
363	RIS	381	IRE	400	REI
		382	ISC		

Table 2

Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code
13	R--	365	R--	305	RIE
26	R--	390	R--	306	RIE
59	R--	191	RI-	311	RIE
81	R--	215	RI-	316	RIE
82	R--	312	RI-	323	RIE
83	R--	315	RI-	342	RIE
84	R--	181	RIA	345	RIE
101	R--	273	RIA	359	RIE
102	R--	21	RIS	360	RIE
103	R--	25	RIS	389	RIE
105	R--	50	RIS	27	RIC
106	R--	60	RIS	41	RIC
108	R--	86	RIS	43	RIC
121	R--	115	RIS	44	RIC
123	R--	177	RIS	45	RIC
124	R--	185	RIS	47	RIC
125	R--	198	RIS	48	RIC
126	R--	199	RIS	58	RIC
129	R--	200	RIS	157	RIC
153	R--	214	RIS	166	RIC
156	R--	220	RIS	190	RIC
159	R--	340	RIS	202	RIC
160	R--	363	RIS	304	RIC
171	R--	2	RIE	314	RIC
172	R--	4	RIE	327	RIC
173	R--	28	RIE	330	RIC
174	R--	30	RIE	333	RIC
175	R--	33	RIE	352	RIC
176	R--	85	RIE	56	RAI
178	R--	88	RIE	90	RAI, RIC
195	R--	89	RIE	54	RSI
196	R--	130	RIE	52	RSE
221	R--	151	RIE	109	RSE
223	R--	152	RIE	110	RSE
224	R--	179	RIE	127	RSE
225	R--	187	RIE	158	RSE
226	R--	193	RIE	162	RSE
228	R--	207	RIE	192	RSE
229	R--	208	RIE	267	RSE
262	R--	222	RIE	274	RSE
268	R--	250	RIE	308	RSE
269	R--	253	RIE	317	RSE
297	R--	285	RIE	336	RSE
302	R--	299	RIE	341	RSE
307	R--	301	RIE	344	RSE

Table 2 (Continued)

Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code
91	RSC	136	ISA	216	ASE
362	RSC	137	ISA	374	ASE
122	RE-	146	ISA	133	ASI
349	REI	241	ISA	384	ASI
400	REI	247	ISA	396	ASI
42	RES	375	ISA	329	AEI
49	RES	379	ISA	77	AES
107	RES	251	IEC	150	AES
128	RES, RSE	74	IES	167	AES
149	RES	338	IES	257	AES, ESC
266	RES	209	ICR	296	AES
348	RES	281	ICR	309	AES
354	RES	66	IRA	7	AIS
23	RCI	184	IRA	8	AIS
87	RCI	203	IRA	62	AIS
154	RCI	256	IRA	63	AIS
260	RCI	258	IRA	69	AIS
279	RCI	392	IRA	142	AIS
14	RCS	37	IRS	275	AIS
22	RCS	131	IRS	286	AIS
24	RCS	139	IRS	295	AIS
51	RCS	144	IRS	355	AIS
53	RCS	180	IRS	361	AIS
57	RCS, RCE	188	IRS	370	AIS
104	RCS, RSE	211	IRS	371	AIS
170	RCS	294	IRS	398	AIS
194	RCS	376	IRS	399	AIS
227	RCS	380	IRS	40	AIE
230	RCS	1	IRE	29	AIR
263	RCS	3	IRE	35	AIR
337	RCS	68	IRE	64	AIR
183	IAS	155	IRE	65	AIR
75	IAR	201	IRE	141	AIR
197	IAR	204	IRE	143	AIR
212	IAR	206	IRE	259	AIR
213	IAR	318	IRE	264	AIR
331	IAR	381	IRE	287	AIR
386	IAR	397	IRE	78	S--
346	ISC	31	IRC	100	S--
382	ISC	282	IRC	168	S--
290	ISC	310	IRC	249	S--
32	ISR	334	IRC	324	S--
34	ISR	219	A--	270	SE-
147	ISR	245	A--	132	SEC
288	ISR	291	A--	140	SEC

Table 2 (Continued)

Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code	Occupational Brief No.	Holland Code
238	SER	138	SAI	368	ESC
378	SER	145	SAI	111	ESR
377	SEI	148	SAI	303	ESR
391	SEI	186	SAI, SRE	118	ESI
6	SEA	189	SAI	205	ESI
72	SEA	218	SAI	234	ESI
244	SEA	272	SAI	254	ESI
283	SEA	358	SAI	292	ESI
98	SCE	366	SAI	357	ESI
235	SCE	163	E--	120	ESA
313	SCE	369	E--	165	ESA
248	SCE	46	ECI	11	C--
298	SCE	79	ECI	94	C--
326	SCE	210	ECI	117	C--
383	SCE	97	ECS	335	C--
393	SCE	169	ECS	17	CRI
332	SR-	233	ECS	276	CRI
92	SRI	284	ECS	328	CRS
36	SRE	347	ECS	18	CRE
73	SRE	364	ECS	16	CIS
135	SRE	372	ECS	93	CIE
242	SRE	232	ER-	252	CIE
265	SRE	231	ERI	261	CIE
236	SRC	9	EAS	373	CIE
70	SIA	395	EAS	182	CIR
80	SIA	280	EAR	20	CSE
367	SIA	95	ESC	278	CSE
385	SIA	96	ESC	300	CSE
394	SIA	99	ESC	320	CSE
71	SIE	113	ESC	356	CSE
321	SIE	114	ESC	15	CSR
246	SIC	116	ESC	351	CSR
289	SIC	134	ESC	12	CSI
293	SIC	237	ESC	19	CSA, CIE
76	SIR	239	ESC	322	CER
217	SIR	240	ESC	61	CES
243	SIR	255	ESC	387	CES
388	SIR	271	ESC	55	---
5	SAE	277	ESC	161	---
112	SAC	319	ESC	164	---
10	SAI	325	ESC		
38	SAI	339	ESC		
39	SAI	343	ESC		
67	SAI	350	ESC		
119	SAI	353	ESC		

HOW TO TRANSLATE HOLLAND CODES

INTO DOT CODES OR VICE-VERSA

Many persons will want to search for all the occupations that correspond to their SDS Summary Code. Other persons will want to know what SDS code corresponds to an occupation not listed in the Occupations Finder (SDS). To cope with these questions, two tables have been prepared so that SDS codes can be converted into DOT codes, and DOT codes can be converted into SDS codes.

Table 1 shows how any SDS code can be translated into all equivalent occupations in the Dictionary of Occupational Titles. Table 2 shows how any occupation in the DOT can be translated into an SDS code.

Tables 1 and 2 came from Viernstein's study (1971) in which the Holland occupational classification was extended to all occupations in the DOT. Although her study was empirical, it should be remembered that these translations are not precise and should be regarded as useful approximations.

Table 1

Going from SDS or Holland
Codes to DOT Codes

REALISTIC

RIA	017, 712, 74_
RIS	040, 305, 313, 314, 315, 44_, 52_, 601, 614, 631, 710, 713, 820, 950
RIE	005, 007, 010, 019, 193, 500, 501, 502, 600 605, 611, 612, 615, 616, 617, 619, 62_, 638, 639, 704, 80_, 821, 822, 823, 824, 825, 826, 862, 863, 864, 865, 866, 89_, 953, 954, 955, 956, 957, 959
RIC	013, 014, 222, 36_, 378, 40_, 411, 412, 419, 42_, 45_, 46_, 503, 504, 505, 509, 54_, 550, 551, 552, 553, 554, 555, 556, 557, 559, 56_, 57_, 59_, 602, 603, 604, 606, 607, 609, 613, 630, 632, 64_, 65_, 66_, 67_, 690, 691, 692, 700, 701, 703, 705, 706, 709, 711, 714, 715, 716, 719, 720, 721, 723, 724, 725, 726, 727, 728, 729, 73_, 75_, 76_, 77_, 81_, 827, 828, 829, 860, 919, 93_, 951, 952, 974, 975
RAI	194, 693, 973, 977
RSE	198, 224, 303, 309, 311, 316, 319, 330, 372, 373, 51_, 610, 913, 915, 922,
RSC	240, 317, 318, 371, 38_, 929
RSI	683, 684, 685
REC	302, 306, 686, 689
REI	223, 53_, 637, 869
RES	307, 375, 376, 377, 379, 413, 43_, 910, 912, 920
RCI	018, 304, 633, 694, 699, 79_, 840, 841, 843, 845, 849, 94_, 960
RCS	233, 239, 34_, 558, 680, 681, 682, 78_, 842, 844, 85_, 861, 911
RCE	301, 58_, 90_, 914, 921

Note: Underlining in codes such as 74_ means all occupations with codes ranging from 740 to 749.

*DOT codes are for the first 3 digits.

Table 1 (Continued)

INVESTIGATIVE

IAS	
IAR	021, 023, 055
ISC	
ISR	049, 071, 078
ISA	070
IES	074
ICR	199
ICS	
ICE	
IRA	015, 020, 022, 024, 025, 029
IRS	041, 073
IRE	002, 003, 006, 008, 011, 072
IRC	196, 722

Table 1 (Continued)

ARTISTIC

ASE	150, 151
ASI	149, 152
AES	159, 164, 165, 961, 969
AIS	13 , 141, 142
AIE	298
AIR	001, 143, 144, 148, 970, 971, 972, 976, 979
ASC	333
AEI	962, 963, 964

Table 1 (Continued)

SOCIAL

SEC	045, 166, 310, 312, 334, 335, 338
SER	241, 26_, 270, 271, 273, 274, 275, 276, 277 324
SEI	052, 278
SEA	283
SCE	187, 358
SRI	096, 353, 355, 356
SRE	097, 099, 153, 320, 321, 323, 329, 357, 359
SRC	
SIA	054, 059, 075, 090
SIE	077, 168
SIC	195
SIR	079
SAE	091
SAC	331, 332, 339
SAI	051, 092, 094, 10_, 12_, 354

Table 1 (Continued)

ENTERPRISING

ECR	
ECI	050
ECS	162, 25_,
ERI	182
ERS	
ERC	181
EIS	284
EIR	197
EAS	11_,
EAR	
ESC	163, 169, 180, 183, 184, 186, 188, 189, 191, 281, 290, 291, 293, 294, 296, 297, 299
ESR	280, 286, 292, 350, 351
ESI	012, 185, 282
ESA	285, 287, 289, 352

Table 1 (Continued)

CONVENTIONAL

CRI	207, 208, 229
CRS	206, 234, 236
CRE	221, 231, 232
CIS	160, 213, 214, 215, 217, 219
CIE	202, 203, 209
CIR	216
CSE	201, 204, 205, 235, 237
CSR	230
CSI	210, 211, 212
CSA	242, 243, 249
CER	
CEI	
CES	161

Table 2

Going from DOT Codes to
SDS or Holland Codes

DOT Groups	HOC
001	AIR
2	IRE
3	IRE
5	RIE
6	IRE
7	RIE
8	IRE
010	RIE
1	IRE
2	ESI
3	RIC
4	RIC
5	IRA
7	RIA
8	RCI
9	RIE
020	IRA
1	IAR
2	IRA
3	IAR
4	IRA
5	IRA
9	IRA
040	RIS
1	IRS
5	SEC
9	ISR
05[illegible]	ECI
[illegible]	SAI
2	SEI
4	SIA
5	IAR
9	SIA
070	ISA
1	ISR
2	IRE
3	IRS
4	IES
5	SIA
7	SIE
8	ISR
9	SIR

DOT Groups	HOC
090	SIA
1	SAE
2	SAI
4	SAI
6	SRI
7	SRE
9	SRE
10	SAI
11	EAS
12	SAI
13	AIS
141	AIS
2	AI[illegible]
3	AI[illegible]
4	AIR
8	AIR
9	ASI
150	ASE
1	ASE
2	ASI
3	SRE
9	AES
160	CIS
1	CES
2	ECS
3	ESC
4	AES
5	AES
6	SEC
8	SIE
9	ESC
180	ESC
1	ERC
2	ERI
3	ESC
4	ESC
5	ESI
6	ESC
7	SCE
8	ESC
9	ESC

DOT Groups	HOC
191	ESC
3	RIE
4	RAI
5	SIC
6	IRC
7	EIR
8	RSE
9	ICR
201	CSE
2	CIE
3	CIE
4	CSE
5	CSE
6	CRS
7	CRI
8	CRI
9	CIE
210	CSI
1	CSI
2	CSI
3	CIS
4	CIS
5	CIS
6	CIR
7	CRS
9	CIS
221	CRE
2	RIC
3	REI
4	RSE
9	CRI
230	CSR
1	CRE
2	CRE
3	RCS
4	CRS
5	CSE
6	CRS
7	CSE
9	RCS

Table 2 (Continued)

DOT Groups	HOC
240	RSC
1	SER
2	CSA
3	CSA
9	CSA
25	ECS
26	SER
270	SER
1	SER
3	SER
4	SER
5	SER
6	SER
7	SER
8	SEI
280	ESR
1	ESC
2	ESI
3	SEA
4	EIS
5	ESA
6	ESR
7	ESA
9	ESA
290	ESC
1	ESC
2	ESR
3	ESC
4	ESC
6	ESC
7	ESC
8	AIE
9	ESC
301	RCE
2	REC
3	RSE
4	RCI
5	RIS
6	REC
7	RES
9	RSE

DOT Groups	HOC
310	SEC
1	RSE
2	SEC
3	RIS
4	RIS
5	RIS
6	RSE
7	RSC
8	RSC
9	RSE
320	SRE
1	SRE
3	SRE
4	SER
9	SRE
330	RSE
1	SAC
2	SAC
3	ASC
4	SEC
5	SEC
8	SEC
9	SAC
34	RCS
350	ESR
1	ESR
2	ESA
3	SRI
4	SAI
5	SRI
6	SRI
7	SRE
8	SCE
9	SRE
36	RIC
371	RSC
2	RSE
3	RSE
5	RES
6	RES
7	RES
8	RIC
9	RES

DOT Groups	HOC
38	RSC
40	RIC
411	RIC
2	RIC
3	RES
9	RIC
42	RIC
43	RES
44	RIS
45	RIC
46	RIC
500	RIE
1	RIE
2	RIE
3	RIC
4	RIC
5	RIC
9	RIC
51	RSE
52	RIS
53	REI
54	RIC
550	RIC
1	RIC
2	RIC
3	RIC
4	RIC
5	RIC
6	RIC
7	RIC
8	RCS
9	RIC
56	RIC

Table 2 (Continued)

DOT Groups	HOC
57	RIC
58	RCE
59	RIC
600	RIE
1	RIS
2	RIC
3	RIC
4	RIC
5	RIE
6	RIC
7	RIC
9	RIC
610	RSE
1	RIE
2	RIE
3	RIC
4	RIS
5	RIE
6	RIE
7	RIE
9	RIE
62	RIE
630	RIC
1	RIS
2	RIC
3	RCI
7	REI
8	RIE
9	RIE
64	RIC
65	RIC
66	RIC
67	RIC

DOT Groups	HOC
680	RCS
1	RCS
2	RCS
3	RSI
4	RSI
5	RSI
6	REC
9	REC
690	RIC
1	RIC
2	RIC
3	RAI
4	RCI
9	RCI
700	RIC
1	RIC
3	RIC
4	RIE
5	RIC
6	RIC
9	RIC
710	RIS
1	RIC
2	RIA
3	RIS
4	RIC
5	RIC
6	RIC
9	RIC
720	RIC
1	RIC
2	IRC
3	RIC
4	RIC
5	RIC
6	RIC
7	RIC
8	RIC
9	RIC

Table 2 (Continued)

DOT Groups	HOC
73	RIC
74	RIA
75	RIC
76	RIC
77	RIC
78	RCS
79	RCI
80	RIE
81	RIC
820	RIS
1	RIE
2	RIE
3	RIE
4	RIE
5	RIE
6	RIE
7	RIC
8	RIC
9	RIC
840	RCI
1	RCI
2	RCS
3	RCI
4	RCS
5	RCI
9	RCI
85	RCS
860	RIC
1	RCS
2	RIE
3	RIE
4	RIE
5	RIE
6	RIE
9	REI

DOT Groups	HOC
89	RIE
90	RCE
910	RES
1	RCS
2	RES
3	RSE
4	RCE
5	RSE
9	RIC
920	RES
1	RCE
2	RSE
9	RSC
93	RIC
94	RCI
950	RIS
1	RIC
2	RIC
3	RIE
4	RIE
5	RIE
6	RIE
7	RIE
9	RIE
960	RCI
1	AES
2	AEI
3	AEI
4	AEI
9	AES
970	AIR
1	AIR
2	AIR
3	RAI
4	RIC
5	RIC
6	AIR
7	RAI
9	AIR

NOTE: Teachers are assigned a code related to the subject they teach; e.g. Mathematics Teacher has DOT number 091.228, but preferably should be coded using the DOT number for Mathematics, 020.088.

Related References:

The following documents are among several that may be referred to for background information about the components of the SDC.

Holland, J.L. Viernstein, M.C., Kuo, H., Karweit, N.L. and Blum, Z.D. A Psychological Classification of Occupations. Report No. 90, Center for Social Organization of Schools, The Johns Hopkins University November, 1970. (Journal Supplemental Abstract Service, in press)

> An occupational classification for practical and theoretical use is presented. The classification rests upon a theory of personality types and includes 431 common occupations which comprise about 95% of the U.S. labor force. Each of the classification's six main classes (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) includes five to sixteen subclasses such as Realistic-Investigative-Artistic, Realistic-Investigative-Social, etc. Within each subclass, occupations are arranged according to the number of years of general educational development required to perform them. The arrangement of main classes and subclasses is defined empirically and is consistent with the classification's theoretical base. The arrangement of classes also makes it possible to estimate the psychological relatedness among occupations. The construction of the classification, an evaluation of its usefulness, and some illustrations of its potential practical value for vocational guidance, occupational research, vocational education and social science are outlined.

Viernstein, M.C. The extension of Holland's occupational classification to all occupations in the Dictionary of Occupational Titles. Report No. 100, Center for Social Organization of Schools, The Johns Hopkins University, April,1971. (Journal of Vocational Behavior, in press)

> Two methods are presented for extending Holland's occupational classification to include all occupations in the Dictionary of Occupational Titles (DOT).
>
> Holland's classification is based on a theory of personality types; occupations in the classification are organized into six major categories (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) and subcategories using the same concepts.
>
> The methods given in this article enable translation from any DOT occupational code(a six digit number) into the corresponding Holland occupational code.
>
> The first method is essentially an application of Bayesian statistics to 399 occupations in Holland's Occupational Classification. The second method was developed by using the definitions of each

DOT group (first three DOT digits) and assigning the Holland code which seems theoretically consistent with the DOT definition.

The conversion methods are tested and compared on four occupational samples. An evaluation of the usefulness of the methods is given.

Edwards, K. J. and Whitney, D. R. A Structural analysis of of Holland's personality types using factor and configural analysis. Report No. 103, Center for Social Organization of Schools, May, 1971. (Journal of Counseling Psychology, in press)

A sample of 358 men and 360 women took the Self-Directed Search, a vocational guidance tool developed by Holland based on his theory of vocational choice. Data from the sample were subjected to factor and configural analysis in an attempt to verify the relationships among Holland's personality types, to clarify the characteristics of each type, and to extend Holland's hexagonal model to new domains of assessment.

The results of the analyses offer strong empirical support for the hexagonal arrangement of the personality types, and also support the organization of the SDS and Holland's Occupational Classification.

Baldwin, T.B. and Schnuelle, L. An Evaluation of the Self-Directed Search: A Guide to Educational and Vocational Planning. Report No. 124, Center for Social Organization of Schools, The Johns Hopkins University, February, 1972.

This report is an evaluation of the Self-Directed Search(SDS), a self-administered vocational counseling experience. The sample was a total of 1,092 students in the 10th, 11th and 12th grades in four high schools. Three treatment groups were used: (1) a group that took the regular, published version of the SDS, (2) a group that took a version of the SDS which did not contain the "self-directed" aspects, and (3) a control group that received no treatment.

Evaluative criteria were selected that would assess the special effects of the SDS as well as the effects commonly expected from more typical vocational counseling procedures. The results of the evaluation were:

(1) Both versions of the SDS were effective in increasing the number of occupations being considered. The students who took the published version of the SDS were considering more appropriate occupations (based on their activities, competencies, interests and self-ratings) than those who took the non-self-directed version.

(2) Both versions of the SDS were effective in increasing satisfaction and certainty about vocational plans. Students taking either version of the SDS reported feeling more satisfied with their current occupational choice. Students taking the published version reported less need to see a counselor immediately. The control group indicated less satisfaction and certainty by expressing a greater need for information about specific jobs and training programs.

(3) The published version of the SDS was more effective in increasing students' understanding of the theory behind the SDS than the non-self-directed version.

(4) The effectiveness of both versions of the SDS was evaluated as moderately positive by the students themselves.

Appendix B

Evaluation of the SDC Program

In this section we propose some general plans to assist users in evaluating the SDC program. Formulations of these strategies have been guided by the broad objectives of determining the effect of the SDC upon both the students and counselors. Specifically, the evaluation plans address the following questions:

> Is the SDC program popular with the students, and is it used by a large number of them? Does its presence in the school generate student discussion and interest in career planning?
>
> Do the students find their experience with the SDC useful and satisfying? What elements of the system do the students find particularly satisfying or dissatisfying?
>
> To what extent does the program create self-direction and self-motivation in career planning?
>
> What counselor activities facilitate the effectiveness of the SDC? How much does the system assist the counselor and ease his work load?

The types of evaluation strategies range from easily conducted tabulations to more complex experimental studies. The evaluation plan to be used should be determined by the amount of time and effort the evaluator wants to invest, the availability of research assistance and facilities, and the nature of the information that the evaluator wants to obtain.

The evaluation activities are grouped into three levels, according to the research sophistication. Level I consists of easily collected indications of popularity of the SDC and satisfaction with it. Level II involves somewhat more difficult-to-collect measures of the quality of assistance offered by the SDC to the students and counselors.

Finally, Level III suggests research plans for testing constructs of the theory upon which the SDC is based. The three levels are suggested merely to assist in planning evaluations in accordance with local resources: personnel time, training, and funds. Evaluations at all levels are needed, and we expect users to devise many other plans.

Level I.

The evaluation methods on this level are easily conducted, post hoc measures. Although they tend to be subjective and judgmental, they can provide useful information. Some general measures are outlined below.

Popularity - To be effective, a system has to be used. The simplest measure of the popularity of the SDC is the number of students who use it. This number may be obtained by placing a sign-up sheet by the SDC and requesting students to sign when they pick up materials. An alternate method would be to keep a careful inventory of the SDC materials to see how much they are being used.

Popularity of the SDC may be subjectively determined by noting the way that it is used. That is, if groups of two or more students begin coming to the SDC program center for the purpose of working through the program and discussing the results, the evaluator may consider this a positive measure of popularity.

Satisfaction - User satisfaction with the SDC can be assessed merely by polling the students who have used the program.

Users can be identified by the sign-up sheet. Using a simple questionnaire, students can be asked if they liked or disliked the SDC, and if they agreed or disagreed with the results of the SDS. It would probably be informative to allow students to explain their responses.

Effect on students - The effect of the SDC on increasing the interest of students in vocational planning and in aiding the focus of their thought can also be subjectively assessed by administering a simple questionnaire to students. The questionnaire could contain such items as: Have you discussed the results of your SDC experience with your parents? With friends or teachers? Have you considered entering any new occupations since going through the SDC? Have you eliminated any jobs from consideration since going through the SDC? Do the vocations that you wish to enter agree with your SDS code? Again, even though such questions are judgmental, the evaluator can obtain useful information.

Effect seen by counselors - On the basis of their experience and knowledge, counselors are in a position to offer useful criticism and information. A simple questionnaire may be used here, also. Counselors may give information regarding the ability of students to make realistic vocational decisions following their SDC experience, the ability of students to explain their SDS code, and the effect of the SDC in reducing the counselor's case load. Any number of questionnaires may be

devised to suit the information needs of the evaluator.

One questionnaire that has been used is given in Figure B-1.

Level II.

This section outlines the Level 2 evaluation plans. Most of these assessment techniques require both a pre and post measure.

Does the SDC increase the use of occupational information and materials (excluding the Occupational Outlook Handbook and the Dictionary of Occupational Titles) in the school?

Determine the times during the day and the days of the week that students have most access to using the occupational information provided by the school. At these times, take a count of the students actually using them to determine the average rate of usage. Take these counts at the same times on the same days for a week or two.

Introduce the SDC Program into the school. Wait four or so weeks to allow students to become aware of the existence of the SDC. Determine the average rate of usage of occupational information and materials in the same way as before. Be sure to exclude students from the count who are using the Occupational Outlook Handbook or the Dictionary of Occupational Titles since these are part of the SDC. In fact, it might be best to put these books in a separate area to avoid confusion.

Compare pre-SDC average rate of usage with post-SDC average rate of usage.

Figure B-1*

Check through Steps 1, 2, and 3 on HOW TO USE THE SELF-DIRECTED CAREER PROGRAM, and note any difficulties you might have encountered in working through them.

Step 1 (check one)

no difficulty
little difficulty
great difficulty (please explain)

Step 2 (check one)

no difficulty
little difficulty
great difficulty (please explain)

Step 3 (check one)

no difficulty
little difficulty
great difficulty (please explain)

Did you work through any of the Work Experience Kits? _____
Which one(s)? _____

About how much time did it take you to complete the SDS? _____

Are you satisfied with the outcome? _____

Would you like to discuss this with a counselor? _____

*Prepared by Sister Marie Yetter, D. C., Seton High School, Baltimore, Maryland. This SDC program is supplemented with Work Experience Kits.

Does the SDC program increase number of requests of students to talk with people in specific occupations?

Some counseling offices maintain a list of people working in various occupations with whom students may request to talk. It is expected that use of the SDC will increase the number of student requests to talk with people in prospective occupations. The effect of the SDC program on student requests may be evaluated in two ways.

First, the evaluator may determine the base rate of requests prior to the introduction of the SDC program. After using the SDC, the rate of student requests could again be determined and compared with the base rate. In addition, students could be polled to determine the basis for post-SDC requests (prompted by SDC or other source).

A second method of evaluation would be to randomly select students for experimental and control groups. After the experimental group has been using the SDC program for a specified amount of time, compare the rate of student requests for the two groups.

Do students who use the SDC have a good knowledge of the vocations they were considering?

As an outcome of the SDC program, students should be able to name several occupations they are considering as well as give certain information about the occupations. A questionnaire could be developed and administered to determine if students using the SDC program have a better knowledge of their prospective occupations than students who do not use the SDC. Areas of knowledge could include necessary skills for

the job, places where training in the skills may be obtained, level of education required, availability of prospective jobs in the future, locations of businesses, industries, and government agencies hiring for prospective jobs, and judgments regarding the student's "fit" into his prospective occupation. The evaluator may construct his own questionnaire, or he may use one that already exists, such as Banducci's Occupational Knowledge Test.[1]

To conduct the experiment, the evaluator will need two randomly selected groups. The experimental group would use the SDC program, and the control group would use the traditional counseling facilities. At the end of a specified period, both groups would be evaluated for occupational knowledge. A t-test would be appropriate to test the significance of the difference between the groups.

Does the SDC program increase the number of occupations a person considers?

To answer this question, it is necessary to determine the number of occupations a person is considering both before and after using the SDC. Before a group of students uses the SDC program, ask them to list the number of occupations they are considering entering. Then allow the students to use the SDC program materials. After waiting from three to five weeks, ask the students to again list occupations they are considering.

Two items may be evaluated; (1) the change in the number of occupations being considered before and after the use of the SDC, and (2) the homogeneity (similarity) among the occupations chosen before and after the SDC program. To test the first item, the evaluator may use a t-test

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[1]For the use of this measure, see Baldwin, T. and Schnuelle, L., An Evaluation of the Self-Directed Search, (1972) or Banducci, R., Accuracy of stereotypic perceptions of types and levels of occupations in relation to background and personal characteristics of high school senior boys: Unpublished doctoral dissertation, University of Iowa, 1968.

on the mean number listed before the use of the program and the mean number listed following the program. To test the homogeneity of choices before and after the program is more difficult. The evaluator may devise his own test or, on request, can get a testing method developed by the Center.

The evaluator should be aware that the maturation process of the students may affect the number of occupations under consideration. To control for the effect of maturation, a control group should be used in the experiment. If a control group is used, the comparison would be made between the two groups after the experimental group has used the SDC.

Does the SDC program affect the level of certainty about entering pre-SDC occupational choices and post-SDC choices?

The use of the SDC should encourage students to consider occupations that are congruent with their personality type and discourage them from entering occupations that are incongruent. Therefore, the program should reinforce feelings of confidence about entering vocations that are congruent with their personality pattern. An indication of the validity of this hypothesis may be tested by comparing to see if:

1. Following the SDC program experience, students perceive a higher possibility of entering occupations congruent with their personality types and a lower possibility of entering occupations incongruent with their personality.

2. Following the SDC program experience, students drop occupations from consideration that are incongruent with their personalities and add occupations that are congruent.

Because the first of these two tests can be difficult, we will explicate a possible design step by step. Before the students use the SDC, obtain a list of the occupations that they are considering and have them judge the possibility of entering each of the occupations. A Likert scale would be appropriate to determine a student's perception of the possibility of entering occupations. After the students use the SDC, ask them again to indicate the possibility of entering each of the occupations. Then determine the similarity of each student's personality pattern (SDS summary code) to each of the occupations on his list. One method to assess similarity is to determine the code of each occupation by looking in the Occupations Finder, then comparing that code to the student's SDS summary code. Degrees of similarity are given in Table B-1. Each occupation on the pre-SDC list can then be classified as either incongruent or congruent with the student's personality pattern according to the level of similarity. The resulting information can be arranged in a table as shown below:

Congruent Occupations (High Similarity)	Perceived Possibility of Entering Before SDC	Perceived Possibility of Entering After SDC
Incongruent Occupations (Low Similarity)	Possibility Before SDC	Possibility After SDC

TABLE B-1

Scale Used for Describing Similarity between SDS Summary Code and any other three-letter Code

Verbal Description	Chance Expectancy	Index
		INCONGRUENT
1st letter of SDS summary code is not included in other (e.g. RIC, CES)	.500	0
1st letter of SDS summary code matches any letter in the other code (e.g. RIC, CRE)	.500	1
1st and 2nd letters of SDS summary code match any two letters in the other code (e.g. RIC, IER)	.250	2
1st letter of SDS summary code matches first letter of other code (e.g. RIC, REA)	.167	3
All three letters of SDS summary code match letters of other code in any order. (e.g. RIC, ICR)	.125	4
1st and 2nd letters of SDS summary code match 1st and 2nd letters of other code (e.g. RIC, RIE)	.033	5
Letters and order exactly the same (e.g. RIC, RIC)	.008	6
		CONGRUENT

Note. - Cases which fit more than one catagory are given the scale value of the highest catagory.

Comparing the student's judgment of entering an occupation as measured before and after the SDC, the evaluator can assign each occupation to one of three categories; (1) MORE, indicating that the possibility of entering an occupation after using the SDC seems more than before using it; (2) SAME, indicating that the possibilities seem the same at both times; and (3) LESS, indicating that the possibility of entering the occupation seems less after the SDC. Finally, the evaluator can determine whether a student perceives CONGRUENT jobs in general as MORE, SAME, or LESS possible by counting the number of times each of the three categories occurs in the congruent group. In a similar manner, INCONGRUENT jobs may be assigned a category of MORE, SAME, or LESS for each student. After this process has been completed for all students, a 2 x 3 frequency table as shown below can be constructed.

Possibility of Entry After SDC Compared with Before SDC

Job-Personality Similarity	Less	Same	More
Incongruent (Low Similarity)			
Congruent (High Similarity)			

Using Kendall's S, it is possible to test the hypothesis that students perceived the possibility of entering CONGRUENT jobs as greater and the possibility of entering UNCONGRUENT jobs as less after the SDC program. This, in effect, tests the effect of the SDC in promoting realistic choices.

Does the SDC have an effect on the undecided student?

By means of a questionnaire, identify a large group of students who state they are undecided about occupations. Even though they are undecided, ask them to list occupations they are considering at the present time, if any. Randomly select students and assign them to one of two groups: ones who will be asked to complete the SDC and ones who will not be asked. After the one group has completed the SDC, again administer the questionnaire to all students in both groups. Also ask if they are better able to make some decisions now.

Compare both groups on the following outcomes:

1. Average number of occupations being considered. A "t" test might be used. However, should a non-parametric statistic be preferred with these data, a phi coefficient may be used with SDC/No SDC as one variable and Increase/No Increase in number of occupations considered as the other variable. This will indicate the relationship between treatment with the SDC and degree of increase of occupations being considered.
2. Compare the No SDC group with the SDC group on the number of students who state they are better able to decide on occupations now than several weeks before. Use the phi coefficient with SDC/No SDC as one variable and Better Able to Decide/About the Same as the other variable. This will indicate the relationship between treatment with the SDC and changes in decisiveness about occupations.

3. Other comparisons that occur to the investigator might be tested using this procedure. Also of interest would be the appropriateness of the post-SDC occupations being considered compared to SDS final codes for the SDC group.