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ABSTRACT

This practicum involved designing a special program for a target group of 19 high school Exceptional Student Education students enrolled in a culinary arts vocational program to build and maintain basic culinary arts skills. The program, intended to enable them to qualify for the Florida culinary arts completion certificate, was designed by the vocational education teacher in cooperation with the special education/resource teacher. The students were instructed in 8 of the 15 competencies included in the Florida state requirements, and were given intense verbal practice for culinary arts vocabulary and repetitive psychomotor practice with verbalization for weights/measures procedures and cooking/preparation techniques. Areas of competency included: cutting julienne style; chopping and dicing; slicing, shredding, and grating; knowledge of mire poix (a technique used in the preparation of sauces); breading procedures; sauteing and deep frying; using weights and measures; and practicing sanitation, safety, and hygiene. Results indicated the students were able to perform 80 percent of the 8 competencies successfully, and it is projected that the students could also master the remaining competencies. Development of a special curriculum with different exit points which correlate with specific jobs in the culinary industry is recommended. Appendixes contain a student flow chart, a curriculum framework, expected competencies, and an assessment form. (Contains 26 references.) (Author/JDD)

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FOR EARNING AN ESE CULINARY ARTS CERTIFICATE

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by

Leopold J. Donnarumma

A Practicum Report

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## Abstract

A study to Determine Acceptable Curriculum Guidelines for Earning an ESE Culinary Arts Certificate.

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Descriptors: Vocational Education/Culinary Arts/Exceptional Students Education/Transition/Special Education Programs/Integrated Curriculum/Special Education Teacher/Resource Room/Curriculum Reference/Competency Based Curriculum/Manipulative Training/Psychomotor Skills/Perceptual Skills/Work Samples Assessment/Likert-Type Scale/Tactile Modality Test

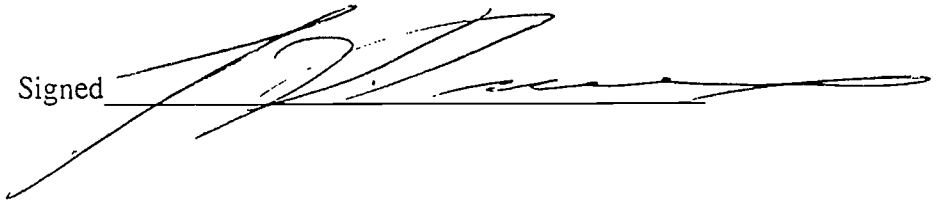
The Exceptional Student Education (ESE) students enrolled in the culinary arts vocational program could not read nor compute well enough to complete the regular curriculum; therefore, they were unable to master the requirements to qualify for the state culinary arts completion certificate. For this practicum, a special program for this target group of students was designed by the vocational education teacher, in cooperation with the special education/resource teacher, to build and maintain basic culinary arts skills. Using intense verbal practice for culinary arts vocabulary and repetitive psychomotor practice with verbalization for weights/measures procedures and cooking/preparation techniques, these students were instructed in eight of the fifteen competencies included in the state requirements.

The results indicated that this practicum enabled ESE students to successfully perform 80 percent of the eight culinary competencies when assessed by a tactile modality format, with observation and verbal orders given by a certified chef. This data demonstrated that ESE students can be successful in the culinary arts area. It is projected that these students could master the remaining competencies in this practicum. It is suggested that a special curriculum be designed for ESE students with different exit points which correlate with specific jobs in the culinary industry. As these students perform well enough to gain a state certificate in one or more areas, they could then find satisfactory employment in the community. Appendices include the required competencies, teaching aids, and assessment tool.

### Authorship Statement

I hereby testify that this paper and the work it reports are entirely my own. Where it has been necessary to draw from the work of others, published or unpublished, I have acknowledged such work in accordance with accepted scholarly and editorial practice. I give this testimony freely, out of respect for the scholarship of other workers in the field and in hope that my work, presented here, will earn similar respect.

Signed

A handwritten signature in black ink, consisting of several fluid, overlapping strokes, extending across the line of the word "Signed".

### Document Release

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## Chapter I

### Purpose

The vocational school where this activity was implemented is located in a metropolitan area in a southeastern state. It serves a tri-ethnic community which is 55% White, 25% Black, 13% Hispanic, and 7% other. In the past, the area was predominantly a farming area, but due to urbanization reaching out to most of the area, it now includes light industry, office type businesses, and retail businesses including many large and small restaurants.

The school building consists of a two-story main building with two other one-story buildings in parallel with a main hall connecting the three. The main building houses the business and medical classrooms, while the other two house the trade and industrial shops. The instructional staff of the school consists of six administrators, five placement specialists, 86 full-time, and 24 part-time teachers, and seven teacher aides, serving day and night classes.

The school is proud of its many achievements in its service interest clubs as there are always students competing at the national level. The school is accredited by the Southern Association of Colleges and Schools (SACS) and has been selected as a special center of education excellence two consecutive years; this distinguished award is part of the public schools Quality Instruction Incentives Program (QUIP).

As part of the professionalization movement, this school has a school-based management with shared decision-making. Collaborative efforts of the faculty and staff have created an atmosphere of camaraderie and cooperation. The school has established strong links with business and industry in addition to being involved in many activities within the surrounding community. Because of these ties with the community, job placement is available for vocational students having culinary arts knowledge and a culinary arts completion certificate.

The school serves and trains four principle groups from the community. The school population is comprised of adults, shared-time high school students, high-risk full-time students, and exceptional students. The Vocational Interdisciplinary Program (VIP), serving the high-risk population, is used as a model for other student-at-risk programs.

Exceptional students make up one third of the high school population. During the 1991-92 school year there were 160 exceptional students in attendance as shared-time students. The students were 59% male and 41% female, while 43% of the students were White, 30% Black, and 27% Hispanic. They all were assigned to the Exceptional Student Education (ESE) lab, where they received general orientation instruction about the school.

The objectives of the ESE lab are:

1. To provide required academic instruction.
2. To develop student knowledge, skills and attitudes.

3. To develop a positive attitude about school and work.
4. To provide vocational skills training correlated with employability skills instruction.
5. To provide on-the-job training in business and industrial establishment.
6. To provide access to vocational work study programs for these students identified by project counseling staff.
7. To provide job placement and follow up activities for program participants.

After orientation, the students observe different workshops. After all the observations are completed, they select a permanent workshop with the assistance of a counselor, the ESE teacher and the workshop teacher. (See Appendix A: 40).

During the practicum, the daytime culinary arts class was comprised of ESE high school, regular high school, and adult students. The morning high school students attended the lab from 7:10 A.M. to 9:40 A.M. and the afternoon high school students arrived at noon and left at 2:30 P.M. The adult students were in class from 8:00 A.M. until 2:00 P.M. This time schedule allowed the morning and afternoon high school students to work and learn side-by-side with adults. The adult students benefited from helping the high school students and the high school students learn how adults functioned in class and in the work place.



The day culinary arts class had 62 students in the three sessions. There were 19 ESE students included in this total. These 19 ESE students were the target group participating in this practicum. This group included one hearing impaired, one autistic, six emotionally handicapped, and 12 learning disabled students. The average age was 17.6 with a range from 15 years old to 20 years old. Sixty-four percent were male and 36 percent were female.

The author of this practicum has been teaching culinary arts to ESE students, non-ESE high school students, and adult students for five years. The author spent 22 years in the U.S. Navy and 14 years operating a successful catering business. He has a strong commitment to the community and is actively involved in the Vocational Industrial Clubs of America (VICA), the Chamber of Commerce, and the Professional Food Managers Association. He encourages his students to participate in those organizations which enhance the culinary arts program and give the students a sense of belonging.

Exceptional Student Education (ESE) students assigned to the culinary arts program cannot read or compute well enough to master the requirements set by the state culinary arts curriculum guidelines (Appendix B: 42); therefore, they cannot qualify for the culinary arts completion certificate. According to reported achievements scores on Individualize Educational Plans (IEP), the high school ESE students assigned to culinary arts function at an average of four and seven tenths (4.7) grade level in reading comprehension, and at a grade level of four and nine tenths (4.9) in math comprehension.

Since there is no special culinary arts curriculum for the ESE students, they have a more difficult time finding employment. When they do find employment, the ESE students are assigned tasks such as cleaning, serving, bussing, and other menial work that may be needed. While they are in school for the required hours, and participate in training blocks within the curriculum, the reading and math levels required for learning these tasks are too difficult for most ESE students to master.

Students identified as ESE became integrated into the public education system due to PL-94-142 now superseded by the Individuals with Disabilities Act of 1990. Students with disabilities are integrated into typical vocational education (voc-tech) classes or attend the same voc-tech education centers as their non-disabled peers. Although the attempt at integration was extremely important, it unfortunately resulted in producing students who were unable to learn meaningful skills or who were trying to learn the same skills with the same expectations as the non-disabled students.

As stated by Nisbet when he referenced the President's Committee on Employment of the Handicapped, 1980, the majority of test and evaluational procedures that are now used to select qualified students for occupational training opportunities are designed to constitute a nearly insurmountable barrier to handicapped applicants because they have been tailored to the needs of the non-handicapped (1988: 87) Such procedures do not measure the capacity for success that can be achieved through special education. "The educator must use

realistic evaluation tests or procedures that can show the individual's strengths and weaknesses and possibly the work potential of the handicapped student" (Greenspan and Schultz, 1981: 24).

In order for students with learning disabilities, and others who are low achievers, to succeed in the instructional mainstream, teachers may need to bolster the instructional curriculum (Carnine, 1990). Educating students with learning disabilities in mainstreaming contexts, creates an instructional dilemma for which there is no easy or straight forward solution. The solution is most likely to be multifaceted; nevertheless, one source of the problem may reside in the developmental curriculum that often shapes the content, pace and sequence of instruction (Dukin, 1990). The concerns are real. Gickling and Thompson stated that with the demands of a heterogeneous mainstream classroom, the interaction of students at the lower end of the achievement curriculum and standardized curriculum may result in what they coined, "curriculum casualties" or students "unable to adapt to instruction and curriculum that moves too fast and demands too much in relation to their existing skills" (1985: 209). An additional curriculum concern relates to the information targeted for instruction. Teachers' guides may endorse the "cafeteria theory" (Chall, 1967: 190), in which many more objectives and more information are included than teachers can use or students can master. Kameenui proposed to close the gap between low achievers and successful learners by suggesting that teachers engage in "curriculum compression" (1990: 57) in which they selectively teach only essential skills. Research suggests that while students with learning handicaps are part of the

academic mainstream, instruction is largely undifferentiated, and is both whole class and text driven (Baker and Zigmond, 1990).

When training ESE students, vocational educators must recognize the need for changes in vocational curricula, become evaluators and instructors within community contexts, and learn to use their communities as active resource and support for vocational preparation for students with disabilities (Nisbet, 1988). Vocational education should move away from self-contained evaluation centers and measure student's performance in relation to actual skills required in business and industry. Evaluation can be conducted only under conditions when systematic instruction occurs in commonly based work environments (Nisbet, 1988).

Adjusting the curriculum for the Exceptional Student Education (ESE) student was accomplished by adapting the regular curriculum guidelines for oral use with ESE students. Since ESE students have limited reading skills and limited interpretive abilities required in adjusting recipes for various portions, instructions to these students were, of necessity, given verbally.

This author projected that after a period of three months, 14 of the 19 ESE culinary arts students would achieve an 80 percent proficiency in the areas of expected competencies (Appendix C: 44) as determined by the assessment of their work samples using a tactile modality format (Appendix E: 48) when given specific verbal orders to accomplish specific tasks.

Along with the skills needed to earn a culinary arts certificate, the target group participated in future problem-solving techniques. Success in this area was difficult to determine due to the cognitive limitations of the ESE students. Small numbers of students were grouped together to participate in brainstorming sessions. They were given possible problems that could arise in their social and work life. Because of the special problems of this group, the author felt that having ESE students participate in these brainstorming sessions, in itself, was an accomplishment.

After brainstorming, the students used collaborative techniques to voice their solutions to the problems. Future problem solving programs, by E. Paul Torrance as stated by Crabbe (1985), were suggested for the purpose of having students use their intuition and imagination in order to: 1) become better team members, and 2) integrate a problem-solving process into their daily lives.

In summary, a special curriculum should be designed for the ESE student so that (1) a completion certificate could be earned; (2) the prospective employer would know he is receiving a worker with a high experience level; and (3) the ESE student would have a higher sense of accomplishment and motivation level; at present , none of these are possible for the ESE student. It was this author's intent to modify the culinary arts curriculum during this practicum so that ESE students may achieve the original goal of the curriculum which is to obtain a culinary arts certificate and find satisfying employment

## Chapter II

### Research and Solution Strategies

Vocational preparation is valuable for all high school students, but for the handicapped it is crucial (Anderson, et al., 1986). Kleine (1991) reported that an estimated 350,000 students graduate annually from special education programs. Only three out of 10 received employment-related instruction and training, and only 50,000 to 60,000 are served by Vocational Rehabilitation. Therefore, students leave the confines of school programs unable to make the transition to productive work. Various programs for the handicapped have prepared students with particular vocational skills which enabled them to acquire entry level jobs. The School Community Training Program (SCTP) (Albany, N.Y. school district) had 58 handicapped high school students participate from June, 1980 to May, 1985. The SCTP had three phases. The first, pre-vocational skill acquisition, took place in the classroom. This was the in-depth training that prepared the student for actual job site activities, which, by use of individual assignments, group discussions and simulations, guest speaking, projects, field trips, training packets, videotaped simulations and microcomputer activities, helped the students master the curriculum and achieve the skills they needed in order to go out into the community and work.

The next step was career exploration. In that phase, the student visited job sites for observation and some hands-on activities. These activities were

evaluated by a site supervisor who detailed the student's vocational strengths and weaknesses. The students completed three to five career explorations.

The last phase was career preparation. At that point the student received individual training at a job site in the community. The key point of the SCTP included a signed training agreement between the students, their parents, the site supervisor, the SCTP teacher and the high school principal. Also, it was an individualized training plan developed between the SCTP teacher and the site supervisor. Included in the training plan was a task analysis of the specific skills the student had to master. Of the 58 students that completed the SCTP, 37 were learning disabled, eight had emotional handicaps, nine were educable mentally retarded, one had a speech impairment, and three were identified as multiple handicapped. Of the above 58 students, 38 are still employed full time, two are employed part time, one went into the military, four are homemakers and six are participating in some type of post secondary training and seven are unemployed.

Another transition program was the Community Vocational Training Program (CVTP), as reported by the San Francisco Unified School District (Siegel, et al., 1989). This transition program trains and places high school seniors with mild handicaps into permanent employment and post secondary education.

The key components of the CVTP were: (A) a willingness to make demands of students, (B) an intensive, community classroom supervisor at the work site, (C) the school based employment skills workshop and (D) the personal commitment of the staff.

The program started with the recruitment phase in which teachers referred seniors to a semester long training program. There were five criteria involved in the referral. They were (1) the motivation to work, (2) parental support, (3) good attendance, (4) prevocational or vocational training, and (5) some ability to alphabetize for clerical positions. Referred students were then given a preliminary interview with the CVTP manager who questioned them on their interests and goals. Students who made it to their interview on time passed; that was the only criterion. Any extremely aggressive or immature behavior eliminated enrollment eligibility at that time.

The program manager and the new intern determined which employment site was most suitable for the intern. An interview was conducted by the site manager and he made the final decision on who was hired. This last interview and selection helped to increase the employer's commitment to the school program; also, it made the job selection process competitive.

CTVP made a basic promise: if the intern met the requirements and successfully completed the program, then the CTVP staff made a lifelong commitment to the career development of that intern. This included a job club, a connection to adult service providers, assistance with post secondary schools, advocacy on the job, and assistance in future career changes.

Of the 61 interns accepted into the program only two had been terminated. In the last four years of the program the placement rate was as follows. in 1985, 67 percent were placed (or six of nine graduates); in 1986, 76 percent, were placed (or 10 of 14 graduates); in 1987, 83 percent were placed



(or 10 of 12 graduates); and in 1988 they realized 100 percent placement (or 11 out of 11 graduates). The CTVP was successful. It aspired to the best of family and school interventions and also had been able to develop close relationships with businesses.

Another program that dealt with the problem of non-employed handicapped people was the County Cooperative for Exceptional Children in Texas (CO-OP School program), as reported by Sarkies-Wircenski & Wircenski, (1991). The principle of the County Cooperative for Exceptional Children, was that training handicapped students in natural community settings, using many direct contacts with non-handicapped people, encouraged smoother transition from school to work.

The program, as reported, mirrored many of the ideas of Wehman, Regel and Barcus (1988). He stated that handicapped students must make the transition in three stages: (1) school instruction, (2) planning for the transition and (3) placement in meaningful employment. The programs that best helped the transition process used a functional curriculum, integrated students with non-handicapped people and placed of these students in the community.

Since the CO-OP program began in 1986, 18 students have either graduated or left school at age 22, twelve are competitively employed, three were hired for part-time work, and four went on to post-secondary training. The final outcome was that the CO-OP school (1) enhanced general functioning in non school environments (2) increased the number of integrated environments available to people with severe handicaps, (3) gave students access to meaningful

choices and opportunities, (4) helped the general public learn to interact with handicapped people, and (5) contributed to the dignity and human rights to which all individuals are entitled.

In the area of communication skills, Stevens and Liechtenstein, (1990) reported on a Dover, New Hampshire Vocational Center program which integrated communication skills into subject matter. The authors stated "to be effective and truly integrated, communication skills must be a natural part of the daily process" (1990: 15). In an earlier study, Greenan, (1983) identified communication skills that are basic to secondary vocational training programs. The skills were grouped into four categories, or scales: (1) words and meanings, (2) reading, (3) writing, and (4) speaking and listening.

In the words and meanings category, vocational instructors can model appropriate spelling skills by using a dictionary to check difficult words while allowing the class to witness this process. The instructors should also be aware of the words they use. Words that the students may not understand, have common meanings, or even a different vocational meaning, should not be used. However, if they must be used, because of the normal use in a vocational setting, clues should be provided in simpler terms to allow proper understanding. The most beneficial method for word usage is the use of vocabulary "flash" cards, especially in the area of vocational terms and procedures, matching definitions with words in a game format.

In the category of reading, one technique to make the vocational textbooks more meaningful is to ask certain questions prior to the students' reading. The

questions hopefully will alert the students as to what is important when they see the information in the text. Another technique is the use of an advanced organizer, a worksheet issued before a new concept is introduced. This could include the topic, an outline of material to be covered, the action to be taken by both the student and the teacher, background information, relationship to previous lessons, the concepts to be learned, motivation for the students to learn, new vocabulary list, and/or a statement of the general outcome desired. Reconstructive elaborations may be used which aid in making information more concrete and meaningful. These "elaborations" are add-ons to the information that can help facilitate recall. They include having students read technical reference materials and manuals, using "real world" sources of information such as newspapers and trade magazines, giving directions for class activities in writing, and posting daily assignments so the students may read them upon entering.

For the writing scale, specific techniques can be used to enhance writing skills; they include the writing processes of pre-writing, composing, revising, editing and publishing. The philosophy of this technique is that writing is a learning experience and ideas evolve through this process.

The listening scale techniques are the use of "listener-friendly lectures" incorporating the use of advance organizers, cue words and reinforcing technical vocabulary by writing it on the board. Other activities may include oral directions while observing which students have difficulty following through, and thus providing them with the opportunities and instructions to improve their

listening skills. Cooperative learning and peer collaboration can also improve comprehension. Lectures can also become more meaningful by using techniques such as guided lecture procedures, allowing the students to attend lectures without taking notes, insuring the lecturer pauses at regular intervals so the students may consult each other and summarize. These concepts were strongly underscored since vocational instructors do play an important role in their students' lives. This role can be beneficial in helping students integrate communication skills in the vocational classroom.

Integrated curriculum approaches as designed by the Designated Vocational Instruction (DVI) were reported by Hazelkorn and Lombard (1991) in Wisconsin. These were interdisciplinary efforts between special education and vocational educators that helped high school students with disabilities to learn vocational skills and competencies in the least restrictive environment. In this concept, the special education teachers provided instructional support to both students and vocational instructors. This support was reinforced by the special educator's expertise in how to teach along with the vocational instructors expertise in what to teach. The quantity and degree of involvement of the special educator was dependent upon the needs of the parties involved, but the role was to provide direct support to the ESE students, and provide indirect support to the vocational instructors and to the program.

The direct instructional support was accomplished by working directly with the students in vocational classrooms and in the community. In the DVI vocational classroom, the special educator works "side by side" with the ESE

students. Some of the most effective strategies were to attend class with the students and help them to better understand by giving further explanations, assisting in daily lab sessions, and procuring hands-on help. They helped students take notes, assisted with daily assignments, read to the students and monitored their progress.

In the special education classrooms, the teachers used direct instructional support techniques by helping the students to be accountable for their work, studying with the students, reinforcing skills covered in the vocational lab, reading assignments orally, operating labs where students could further develop certain vocational skills, reviewing for exams, and allowing more time and a place for students to finish vocational exams. In the community, direct support was accomplished by helping students find jobs and providing special instruction to the students in the work place or assisting the students with their employability skills.

Indirect support refers to non-direct student contact. Services were collaborating with vocational instructors, providing in-services for the staff, and evaluating student and program effectiveness. When the special education teacher collaborated with vocational instructors they combined the knowledge, the expertise, and the resources of several individuals and/or agencies for a successful educational learning experience.

The DVI approach designated three techniques that have proven to be effective; (1) cooperative learning, (2) tutoring, and (3) a competency-based curriculum. Cooperative learning groups had the advantage of motivating stu-

dents since students are not threatened or frustrated by the task because they work with their peers and bond with each other.

Tutoring should be done by persons other than the vocational teachers to help increase the students' academic and vocational levels. This was accomplished by: (1) content area instruction, (2) reinforcing instruction, (3) teaching remedial academics, (4) performing demonstrations, (5) working one-on-one in small groups, (6) helping students complete assignments, (7) reviewing for tests, and (8) administering and evaluating tests. Also another benefit of the tutors was they provided an opportunity for students to acquire study skills.

The role and degree of involvement of the special educator depended on the needs of the students and the vocational instructors. The special educator or resource room teacher directly supported students with disabilities and/or gave indirect support to vocational instructors, and the program itself. (Hazelkorn and Lombard, 1991). For collaboration to be effective, "it is important that there is a professional respect based on a recognition of each other's technical expertise" (Green, Albright and Kokaska, (1989: 03).

In his article, Cobb (1983) states that vocational assessment must be integrally related to an individual's educational and training program. It should be a continuing, ongoing process that occurs as part of a training program that is derived directly from the components of that program. When vocational assessment occurs in this manner, it can be described as "program related or curriculum referenced" (Cobb, 1983: 217). The vocation lab should relate to an actual work place and real job situation. Vocational education must come

from the confines of the special education classrooms to explore the vast potential of the community (O'Brien, 1986).

A competency-based curriculum is necessary to ESE students because it: (1) outlines exactly what the student will learn, (2) provides high quality instruction, (3) ensures the student learns one skill before going on to another task, and (4) requires the student to demonstrate each competency. Another benefit of the competency-based curriculum is the completed curriculum may be shared with prospective employers. All involved in this curriculum will know the expectations of students who complete it.

The evaluation process is an on-going process (or formative evaluation) that provides periodic and continuous feedback on the students and the program itself. Both formal and informal measures are used. The formal measure, being more statistical, provides specific information on the modifications in design, implementation and evaluation of the program. The informal measure more closely monitors the student and can include criterion-reference tests, checklist and rating scales, interviews, observations, and anecdotal records concerning the student's behavior and performance.

The program effectiveness is determined by follow-up measures as to the competency level of the training skills and the students' successful job placement. The follow up also allows for adjustments in the program in areas where success was not achieved.

The Pierce County Vocational/Special Education Cooperative (VSEC) in Washington State is a cooperative consortium comprised of 12 school districts

as reported by Gill and Edgar (1990). There are two levels of application in the cooperative model: interdistrict and intradistrict. Interdistrict applications involve consolidation and collaboration between districts at the county level. Intradistrict applications involve those initiatives and actions that occur within the districts and buildings. The interdistrict level is further separated into three components which include: (1) data collection, (2) staff development, (3) on-site consultative assistance.

Data collection involves consistent monitoring of the vocational education staff's perceptions of their roles in the Individualized Education Program (IEP) process. These include actual enrollment patterns of the students in the program at the programs offered, a vocational-related goal statement on the students IEPs, and an annual follow-up survey of the graduates.

The staff development is considered the most extensive component of the cooperative mission. It includes the maintenance of the instructional materials. It also covers the various training programs for the vocational and special education personnel, internships with industries, development of the assessment models, and certification of support personnel.

The third major component is the on-site consultative assistance provided to the districts. The program director meets with groups of local administrations and staff of each district. The purpose of these meetings is to assist in developing and initiation of the local implementation plans. They also address district responses to the collaboration of the vocational and special educational efforts. This is very important because they feel each district's problems are unique.



The intradistrict application is to establish some commonality in the service available in each district since they vary in size and priorities. The flexibility in the intradistrict applications enables each district to tailor its own program and remain committed to the overall staff and administrator. Communication is one of the reason for its success. This effective communication between staff and administrators is notably effective in (1) pre-placement planning, (2) IEP collaboration, (3) instructional support, and (4) post-secondary planning. "Collaboration between all pertinent individuals (students, teachers, parents) in the IEP process represents the second major program consideration", (Gill and Edgar, 1990: 18).

In the final analysis, the graduates of the cooperative consortium did better than the comparison groups, both in quantitative and qualitative measures. On employment rates, there were no significant differences between the cooperative graduates and the non-cooperative students. However, the cooperative students were in more skilled employment than the other group. The cooperative students were also enrolled in post secondary education programs at a higher rate than the measure group.

Drawing information from all of the above sources, the strategy for this practicum included a cooperative effort between the culinary arts teacher for culinary arts instruction and the special education teacher for remedial work in vocabulary and mathematics of weights and measures. The target population for this practicum was instructed in cooking and preparation terms used in the

culinary arts industry. Since students are unable to read or understand these terms, they were in a comprehensive remedial program associating culinary terms with the actual practice of the manipulative tasks.

Along with the manipulative terms training, the target population received instruction for 2 hours per week in the ESE lab where remediation occurred in the areas of term association and weight and measures -- important skills needed in any food preparation. They also received two hours per week in employability and social skills. In the kitchen lab, the target population was observed bi-weekly to determine the areas in which remediation was needed.

This service delivery option provided supportive educational services to special education students. Harris and Schultz defined a full functional resource room program as "an optimum balance of services provided directly to handicapped students by the resource room teacher, and in indirect services provided through the resource teacher consultation with the regular classroom teacher" (1986: 5). An underlying assumption of the resource room monitor is that services provided to students with handicaps by the resource teacher in the resource room will promote the success of these students in the regular classroom (Glomb and Morgan, 1991).

## Chapter III

### Method

The following is the proposed schedule of activities, listed by the week, for the 12 week practicum:

#### A. Week 1

Each student participated in the following activities:

1. Took a pretest (Appendix E: 48),
2. Was oriented to the program,
3. Reviewed safety in the kitchen,
4. Learned knife sharpening techniques (safe handling, cleaning, etc.),
5. Listened to instructions on weight and measures,
6. Listened to instructions in problem solving.

#### B. Week 2

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on julienne cutting of vegetables,
3. Applied vocational education instruction on manipulative application of #2 above,
4. Practiced julienne cutting of vegetables with on-going observation by the vocational teacher,
5. Practiced problem solving by attempting to utilize critical thinking skills.

## C. Week 3

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on large dice cutting,
3. Applied vocational education instruction on manipulative application of # 2 above,
4. Practiced problem solving by attempting to utilize critical thinking skills.

## D. Week 4

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on medium dice cutting and how it differs from large dice cutting,
3. Applied vocational education instruction on manipulative applications of # 2 above,
4. Practiced dice cutting skills with on-going observation by the vocational teacher,
5. Practiced problem solving by attempting to utilize critical thinking skills.

## E. Week 5

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on small dice cutting and how it differs from large and medium dice cutting,
3. Vocational education instruction on manipulative

application # 2 above,

4. Practiced problem solving by attempting to utilize critical thinking skills.

F. Week 6

Each student was given the following:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on mincing and how it differs from other cutting,
3. Applied vocational education instruction on manipulative applications of # 2 above,
4. Practiced mincing with on-going observation by the vocational teacher,
5. Practiced problem solving by attempting to utilize critical thinking skills.

G. Week 7

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on mire poix (a culinary technique used in the preparation of sauces),
3. Applied vocational education instruction on manipulative applications of # 2 above,
4. Practiced problem solving by attempting to utilize critical thinking skills.

H. Week 8

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,

2. Watched resource room instruction on slicing, shredding, and grating,
3. Applied vocational education instruction on manipulative applications of # 2 above,
4. Practiced slicing, shredding, and grating with on-going observation by the vocational teacher,
5. Practiced problem solving by attempting to utilize critical thinking skills.

I. Week 9

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on breadng techniques,
3. Applied vocational education instruction on manipulative applications of # 2 above,
4. Practiced problem solving by attempting to utilize critical thinking skills.

J. Week 10

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on saute techniques,
3. Applied vocational education instruction on manipulative applications of # 2 above,
4. Practiced saute techniques with on-going observation by the vocational teacher,
5. Practiced problem solving by attempting to utilize critical thinking skills.

## K. Week 11

Each student participated in the following activities:

1. Listened to resource room instruction on weight and measures,
2. Watched resource room instruction on deep frying techniques,
3. Applied vocational education instruction on manipulative applications of # 2 above,
4. Practiced problem solving by attempting to utilize critical thinking skills.

## L. Week 12

Each student participated in the following activities:

1. Received a general review of areas of expected competence (Appendix C: 44),
2. Took a post-test (Appendix E: 48).

There was an on-going observation by the vocational teacher while the students were in the kitchen lab. If remediation was needed, students were assigned extra hours per week (with supervision) in the kitchen lab practicing those skills. Some students required extra hours of practice throughout the project. This allowed the students the opportunity to maintain the practicum pace and continue learning new skills each week.

The mid-point evaluation consisted of a conference of the resource room special education teacher, the culinary arts vocational teacher, certified master chef evaluator (Appendix F: 50), and the student that was evaluated. The

progress of each student was assessed with the measuring instrument (Appendix E: 48) and remediation, if necessary, was determined. The instruction in the resource room was on the first day of the week and consisted of a two hour block. The areas of expected competence (Appendix C: 44) and the training aids listed in Appendix D: 47 were used during each resource room period.

The target group was in the resource room an additional two hours per week learning social and employability skills. The students were divided into smaller groups and were given hypothetical situations that could develop in the work place. With the aid of videos and role-playing techniques, the students collaborated on problem solutions. Participating in these brainstorming sessions was a new experience for these ESE students as most of them have never been exposed to critical thinking.



## Chapter IV

### Results

Conducting a measurement that may be used with ESE students who have deficits in reading and mathematics poses several questions: (1) What skills are to be tested? (2) How will they be tested? and (3) How will the results be used? E. L. Thorndike as quoted by Popham stated, "If anything exists, it exists in quantity, and if it exists in quantity, it can be measured" (1971: v).

Work sample performance measurements are the most prevalent type of assessment instrument for ~~evaluating~~ psychomotor and perceptual performance in occupational education. The instrument was based on a specific task, job segments, or any portion of the total work load that makes up a job as suggested by Wilson (1962) and Popham (1971). The skills measured were the psychomotor and perceptual performances that make up each task: knowledge of the skills, performance of the skills and ability to perform the skills when directed to do so.

These competencies are already in place for the regular culinary arts students in the curriculum that must be mastered (Appendix B: 42). It must be noted that the target group were measured in the pantry section of the commercial kitchen. The pantry section is the first area in which all students were involved. Here they acquired the basic skills, nomenclature, and

orientation knowledge that becomes a requirement for all students, such as safety, sanitation, tools, equipment, weights and measures, and food handling procedures. The measuring instrument (Appendix E: 48) was a Likert-type scale, and in its construction the writer and the evaluator went through the following stages in setting the criteria:

1. The category and difficulty of the tasks.
2. The degree to which the tasks are relevant to the actual job activity.
3. The degree to which a task is performed in accordance with industry standards.

The evaluator was a professional with many years in the industry with both European and American training, (Appendix F: 50).

The assessment itself was a tactile modality test. The students being assessed were given a verbal order in the area of expected competence (Appendix D: 46). The evaluator noted the starting and ending time and evaluated both the completed product, and whether or not the elapsed time was within accepted corridors.

After the practicum period was completed and assessment was done, the results indicated that an 82 percent average of the target group were successful in the skills area, as shown in TABLE 1. A 48.5 percent average of the target group was successful in the time block allowed, as shown in TABLE 2.

Tables 1 and 2 are on page 30.

TABLE 1

WORK SAMPLES ASSESSMENT  
IN NUMBERS OF STUDENTS

AREAS OF COMPETENCY	PRE-TEST	POST TEST
Cutting Julienne style	0 out of 17	14 out of 17
Chopping and dicing	0 out of 17	15 out of 17
Slicing, shredding and grating	0 out of 17	16 out of 17
Mire Poix	0 out of 17	13 out of 17
Breading Procedures	No pre-test	14 out of 17
Saute and Deep Frying	No pre-test	14 out of 17
Weight and Measure	0 out of 17	11 out of 17
Sanitation, Safety and Hygiene	0 out of 17	16 out of 17

TABLE 2

TIME SAMPLES ASSESSMENT

AREAS OF COMPETENCY	PRE TEST	POST TEST
Cutting Julienne style	0 out of 17	5 out of 17
Chopping and dicing	0 out of 17	10 out of 17
Slicing, shredding and grating	0 out of 17	12 out of 17
Mire Poix	0 out of 17	3 out of 17
Breading Procedures	No pre-test	5 out of 17
Saute and Deep Frying	No pre-test	8 out of 17
Weight and Measure	0 out of 17	7 out of 17
Sanitation, Safety and Hygiene	0 out of 17	16 out of 17

The practicum was deemed a success when a discussion of the results was done by the chef evaluator and the vocational teacher. First, most students showed significant progress (see TABLE 3). Secondly, although there were low success time blocks, both chefs thought that the times would be brought up into acceptable corridors if students continued to practice the skills learned in the practicum for a period of time longer than the 12 week practicum.

TABLE 3

SIGNIFICANT PROGRESS  
BY NUMBERS OF STUDENTS

AREAS OF COMPETENCY	POST TEST
Cutting Julienne Style	15 out of 17
Chopping and Dicing	17 out of 17
Slicing, Shredding and Grating	14 out of 17
Mire Poix	14 out of 17
Breading Procedures	No pre-test
Saute and Deep Frying	No pre-test
Weight and Measure	13 out of 17
Sanitation, Safety and Hygiene	16 out of 17

While the result was most rewarding, perhaps even more meaningful was the self-esteem factor the students realized. Accepting the premise that ESE students who are limited in reading and math skills are educable, this practicum distinguished between what is required by the state curriculum framework for a culinary arts certificate and what is required in the real world of food service

workers. The project was a thumb nail step into the skills required by the state, but did not include all of the skills a food service operator would require of a worker. However, since the target group did master 80% of the skills taught, then the feasibility of implementing a full ESE curriculum is not only desirable, but necessary.

Chapter V  
Recommendations

A culinary arts certificate is issued to any high school student completing the requirements outlined in TABLE 4. The process usually takes two school years. The curriculum includes not only the cooking and baking skills, but math computations as well. ESE students cannot master this curriculum because of their inability to absorb and maintain the required myriad of skills due to their academic level or their inability with manipulative skills.

TABLE 4  
HIGH SCHOOL REQUIREMENTS FOR CERTIFICATION

AREA	HOURS	TRAINING BLOCKS	NUMBER OF SKILLS
ORIENTATION AND PANTRY	300	12	85
COOKING	300	10	150
<u>BAKING</u>	<u>300</u>	<u>9</u>	<u>175</u>
TOTAL	900	30	410

A new certification process should be put in place for the ESE student. The certification process should be set up so the students will have the availability of multiple exit points. These exit points would encompass smaller areas of skills to be mastered that represent actual jobs in the food industry (see TABLE 5: 35).

The Dictionary of Occupational Titles (DOT 1991), describes each occupation and the skills needed to be proficient. These skills could be the curriculum for each exit point certificate. The hours required in each area would have to be averaged over several years' study. The most important factor to be considered before issuing a certificate is the student's actual abilities and employability.

A student could be certified in one area or in several areas. The track of learning would be accomplished by first completing the skills that are in the implementation phase of this practicum. The vocational teacher and the ESE counselor, along with the student, would then plan the courses of certification in which the student would be successful.

TABLE 5  
HIGH SCHOOL ESE CULINARY ARTS EXIT POINTS

DOT NAME	DOT NUMBER
CAFETERIA WORKER	311-677-010
UTILITY WORKER (SCULLION)	318-687-014
STOREROOM CLERK	222-387-058
CAKE DECORATOR	524-381-010
COOK HELPER (PREP)	317-687-010
PANTRY CHEF (SALAD)	317-384-010
SHORT ORDER CHEF	313-374-010
PASTRY HELPER (PREP)	313-684-010
BREAKFAST CHEF	313-361-026
SANDWICH MAKER	316-664-010
FRY COOK	526-685-014
OTHER EXIT POINTS MAY BE ADDED AT ANY TIME	

When this author first outlined this plan to some ESE students, it was met with enthusiasm. The students voiced approval for any plan that would reward their efforts and afford them the opportunity to receive a certificate for the skills they have mastered. Later, when this plan was discussed at a think tank for personnel responsible for ESE training, it was well received. In fact, the recommendations were taken to District for approval; the first step to a state-authorized ESE certificate.



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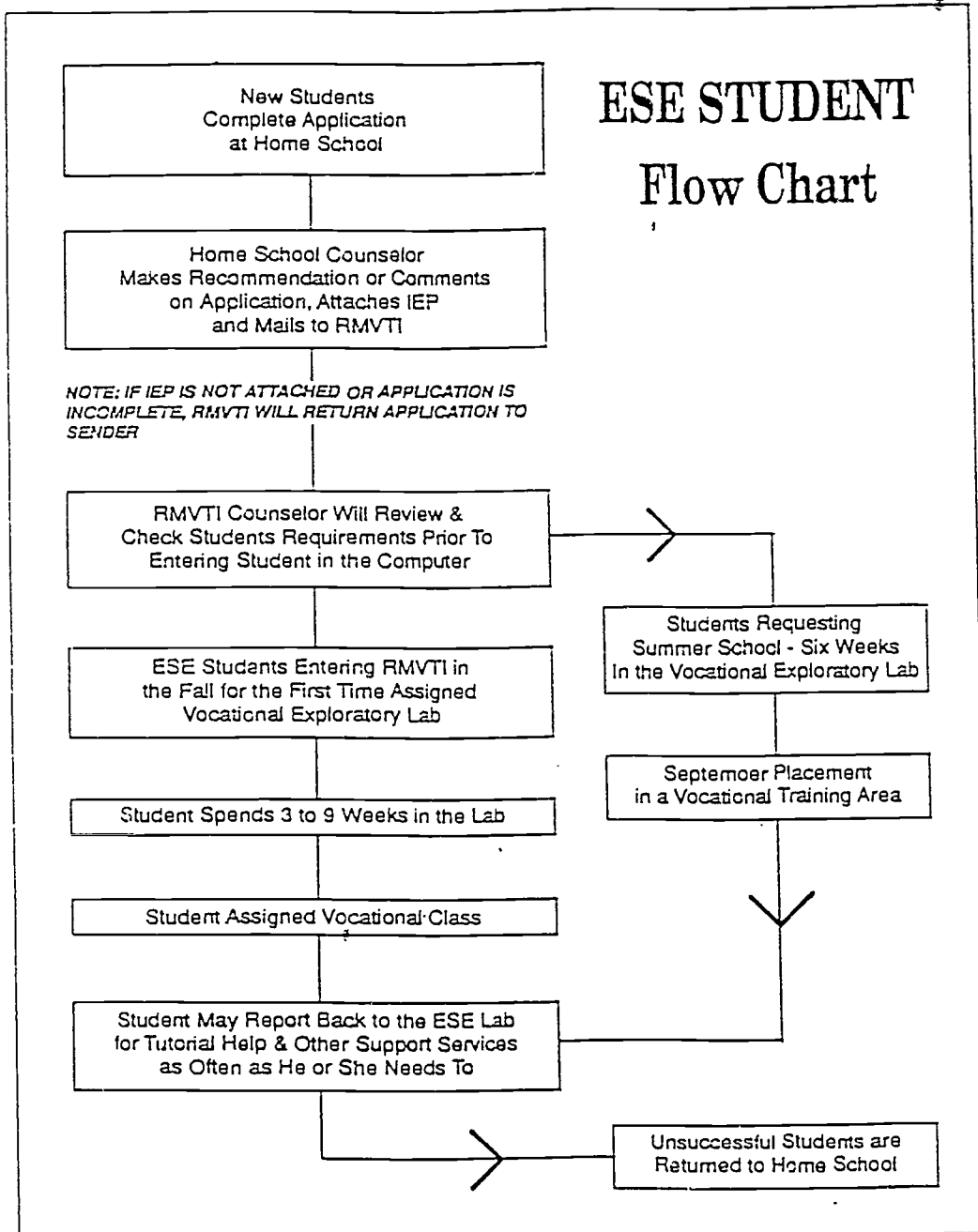
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APPENDICES

APPENDIX A  
ESE STUDENT FLOW CHART

APPENDIX A  
ESE STUDENT FLOW CHART



APPENDIX B  
STATE OF FLORIDA  
CURRICULUM FRAMEWORK

## APPENDIX B

STATE OF FLORIDA  
CURRICULUM FRAMEWORK

- 01.01 Identify dangers of food contamination by chemicals and cleaning agents
- 01.02 Identify and practice preventative measures to preclude the occurrence of food borne illness
- 01.03 Recognize and practice personal hygiene standards consistent with aesthetic and sanitation requirements of food service workers
- 01.05 Recognize and maintain clean and sanitary food preparation surfaces
- 01.07 Identify safe/correct operating temperatures of refrigerated spaces
- 01.08 Recognize and practice sanitary/safe food handling practices in serving lines
- 03.01 Select and use hand tools in a safe and efficient manner
- 03.05 Use knives and cutting tools in a safe and efficient manner
- 03.06 Operate fryers in a safe and efficient manner
- 04.02 Identify standard volume, liquid and weight as they apply to commercial food operations
- 04.03 Identify and apply portion control methods
- 09.01 Prepare fruits and vegetables
- 10.02 Bread or batter meats, poultry and seafood for cooking
- 10.05 Deep fry or saute meats, poultry and seafood



APPENDIX C  
AREAS OF EXPECTED COMPETENCIES

## APPENDIX C

## AREAS OF EXPECTED COMPETENCIES

1. Safety
2. Knife Techniques
3. Weight and Measure
4. Julienne Cutting
5. Large Dice Cutting
6. Medium Dice Cutting
7. Small Dice Cutting
8. Mince Cutting
9. Slicing
10. Shredding
11. Grating
12. Mire Poix
13. Breading Procedures
14. Sauteeing
15. Deep Frying

APPENDIX D  
TRAINING AIDS

APPENDIX D  
TRAINING AIDS

1. Lectures
2. Flash Cards
3. Scales and Measuring Cups, Sand
4. Videos
  - a. "Kitchen Sanitation and Safety" (CA - 87)
  - b. "Parts of a Knife" (CA - 25 - 1)
  - c. "Cutting Techniques" (CA - 80, CA - 25 - 2,3)
  - d. "Weight and Measure" (CA-44)

APPENDIX E  
ESE WORK SAMPLES ASSESSMENT

## APPENDIX E

### ESE WORK SAMPLES ASSESSMENT

Student No. \_\_\_\_\_

### ESE WORK SAMPLES ASSESSMENT

1. Cutting Julienne style 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

2. Chopping and Dicing 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

3. Slicing, shredding & grating 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

4. Mire Poix 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

5. Braiding Procedures 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

6. Saute & Deep Frying 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

7. Weight & Measure 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

8. Sanitation, Safety & Hygiene 0%never 20%rarely 40% seldom 60%often 80%mostly 100%always

final assessment	time
	task
midway assessment	time
	task
pre test	time
	task

APPENDIX F  
EVALUATOR'S RESUME

## APPENDIX F

## EVALUATOR'S RESUME

- EDUCATION:      Graduated: Andrew Cairns Secondary Modern School  
                          Little Hampton, Sussex, England, 1961.
- Broward Community College: Hotel and Restaurant  
                          Fort Lauderdale, Florida, 1971.
- Presently Attending Florida International University
- WORK  
 EXPERIENCE:    1980-Present: Robert Morgan Vocational Technical Institute,  
                          Instructor, Culinary Arts.
- 1979-1980: Sheridan Vocational Center, Instructor,  
                          Culinary Arts.
- 1977-1979: Preparation Cook: La Vieille Maison.
- 1976-1977: Chef: Racquet Club, Bonaventure  
                          Resort and Spa.
- 1974-1976: First Cook: Le Club International.
- 1970-1974: Chef: Ernies Rod and Gun Club.
- 1968-1970: Cook: Celebrity Room, Diplomat  
                          Hotel.
- 1967-1968: First Assistant Cook, Queen Mary,  
                          Cunard Steamships
- 1961-1963: Commis Cook, Curzon Hotel, Sussex,  
                          England