This instructional guide provides curriculum developers, industrial instructional technologists (IITs), and script writers with concrete examples of motivational strategies for the improvement of instruction. It is intended to aid the IIT in addressing motivation within the instructor guide—the driving force of the training package, and to assist the script writer in capturing motivation within the script—the driving force behind the videotape. Background information on motivation is provided. Three areas are described in which an instructor must try to instill motivation: secure attention of the learner, develop interest into desire, and sustain the desire to learn. Twelve specific motivational strategies are provided as well as examples of how to include them in the instructor guide and/or videotape. Each strategy is described, an explanation of why it will motivate is presented, and an example of how it would appear in one or both of the instructional media (instructor guide or video) is provided. Appendixes include a literature review and reference listing. (YLB)
MOTIVATIONAL STRATEGIES
FOR CURRICULUM DEVELOPMENT

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MOTIVATIONAL STRATEGIES
FOR
CURRICULUM DEVELOPMENT

Purpose

The purpose of this instructional guide is to provide curriculum developers, Industrial Instructional Technologists (IIT) and script writers concrete examples of motivational strategies for the improvement of instruction. Specifically, the motivational strategies described in this guide will aid the IIT in addressing motivation within the Instructor Guide, the driving force of the training package; it will also aid the script writer in capturing motivation within the script, the driving force behind the videotape.

Background

Motivation. What does the term mean? One technical definition describes motivation as the extent to which certain stimuli, objects or events effect the occurrence or nonoccurrence of the behavior in question. More simply, motivation can be defined as exciting the mind of the trainee to receive the instruction. Excitement, interest, and enthusiasm toward learning are the primary objectives in motivation.

Motivation is very important to the overall results of the lesson. If the trainee is not stimulated by the instruction and instructional material, the learning can easily become dull and boring. This results in the trainee not paying attention to the lesson. Coffer and Appley (1967) state that there has been a close and continuous relationship between motivation and learning. It is very difficult to separate the two. Motivation is important as a factor in instigating behavior essential for a person to learn.
Many learners come into a learning situation highly motivated to learn only to be quickly "turned off" due to boring, dull or monotonous instruction. Curriculum writers and script writers must be sensitive to keep this from happening.

Motivation for adults takes on another dimension for the instructor. Research has shown that most instructors teach the way they were taught. The biggest problem with this approach is that most of that teaching occurred while the instructor was a child or an adolescent. At those times in the learner's life, he was dependent upon the adult world to make his decisions for him, feed him and direct him. As an adult, the trainee is self-directing. He needs to be treated as an adult. Adults come to a learning situation with more experiences, different kinds of experiences and experiences which are organized differently from those of a child; therefore, he has different needs and desires than a child. All of this impacts on how instruction needs to be delivered and how it will be received. (Kidd, 1973)

Why this concern with motivation? The intent of a module or lesson is to present the learner with information, facts and skills that will enable him to acquire the ability to do his job to the highest standards within the shipyard environment. An instructor will need to use teaching strategies that will "shake up" the learner and motivate him to learn. The instructor will need to get the learner's attention, develop his interest, and then cause the interest to grow into an active desire to learn.

The costs to a shipyard for an employee to be in a training situation are high from a short term perspective. An unmotivated trainee who does not acquire the skills and knowledge taught can be more costly from a long term view. An employee who does not have the proper training can set back
production schedules by not completing his tasks correctly which impacts on the other workers around him; even more importantly, the employee may cause damage to equipment or injury to his fellow workers. See Appendix for further discussion on the importance and value of instructional motivation.
MOTIVATIONAL STRATEGIES

There are many strategies that instructors or developers of instruction can use to insure motivation is included in every lesson. The next few pages will describe three areas an instructor must try to instill motivation, as well as, provide twelve specific strategies and examples of how to include them in the instructor guide and/or videotape. Leighbody and Kidd (1968) state that the trainee must be ready to learn and in order to put the trainee in this readiness state, the instruction must:

- Secure attention of the learner
- Develop interest into desire
- Sustain the desire to learn

Secure Attention of the Learner

The way the lesson is introduced is a good place to secure the attention. This is why the instructor guide has a section at the very beginning of the outline of presentation labeled Motivation, and why video presentations begin with an introduction to the content of the videotape.

The following suggestions may be helpful in determining motivational strategies to include in a lesson. They are only examples and are not intended for boiler plate use. They are recommended for use in the instructor guide and the videotape. You will find a strategy, an explanation of why it will motivate and an example of how it would appear in one and/or both of the instructional medium.
Strategy 1:

Describe a situation involving need for knowledge and skills which you wish to present. Ask the trainee: What would you do in this case?

This strategy allows the trainee to "feel" the importance of the lesson material. It puts the trainee into a situation that creates a little anxiety and desire to know the material. The trainee doesn't want to feel this tinge of anxiety in the real job world. This is motivation.

Example

INSTRUCTOR GUIDE OUTLINE OF PRESENTATION MODULE 1 INSTRUCTOR/STUDENT ACTIVITY

MOTIVATION

This module on blueprint reading is very important to you as a mechanic in the shipyard. You will need to refer to blueprints in order to determine where on a ship a job must be done. Just imagine that right now your group leader would hand you a job order and the blueprint for the USS KENNEDY Aircraft Carrier and tell you to do the job requested on the job order! What would you do?

Discuss the purpose of this module. Describe an incident which requires the student to use blueprint reading skills and ask the students what they would do?

NOTE: This format shows the motivational strategy used in the Instructor Guide. This could be used as the beginning of a videotape. On the videotape a pause should be built in to allow for responses from the learners.
Strategy 2:

Describe a personal experience involving the use of the ideas or skills you are about to present.

This approach allows the trainee to actually visualize how this lesson can help him on the job. He can see through someone else's experience how the knowledge and the skills needed to do the job correctly can make his job easier. This in turn raises the trainee's interest in acquiring the information.

Example

INSTRUCTOR GUIDE

OUTLINE OF PRESENTATION

INSTRUCTOR/STUDENT ACTIVITY

MOTIVATION

I used to work with this guy. You know the type— he was always boasting, he knew how to do everything and was always taking shortcuts. He had very little regard for safety precautions. I was always telling him to unroll his sleeves, to wear his safety glasses or to call the supervisor when equipment broke down. Well one day we were using a gas-driven welding machine when the thing started vibrating like wild. Well Mr. Know-it-all turned the thing off and immediately started trying to fix it. By the time the supervisor got over to him, he had managed to tear the darn thing apart. Boy, was that supervisor mad! He told him that he knew he wasn't supposed to try and fix that machine and now the darn thing was totally out of commission. He sent Mr. Know-it-all to his office for a counseling session. By the time the machine was repaired, we'd lost 2 hours of work as opposed to the 15 minutes we would have lost if Mr. Know-it-all had done what he was supposed to do. Oh! I know you think, big deal, so you got to stand around...
MOTIVATION (Cont.)

for 2 hours! No way! That supervisor was so upset that he had us doing clean-up work non-stop until that engine was fixed. I'd have much rather been doing the job I was assigned in the beginning.

Strategy 3:

Introduce the lesson with a picture, a model, mockup or some other device to get attention.

This strategy is used to focus the trainee's attention. A picture, model or some other device will heighten the trainee's interest. It can be used along with an explanation or questions to involve the trainee in the lesson.

Example

VIDEO NARRATIVE

PLANNING CABLE ROUTES SCRIPT

OPENING: Montage of appropriate shipboard scenes. Assorted shots of cableways. Add piping. Add ductwork. Wide view of a big jumble, then close shot of wireway deep in the maze.

Electrical cable. Rivers of it, flowing through the ship. Channeled into cableways. Branching. Tying together shipboard systems and equipment. A maze competing with other mazes for space in the restricted confines of the ship.
MOTIVATION

Here are two pictures I want you to look at closely. Notice the differences between the two pictures. What do you think this is a picture of? What are the differences between the two pictures?

These are pictures of two types of rubber tiles used for special hull treatment. You will learn a lot about them during this course. When these tiles are installed correctly, taking into consideration the type of tile, the changing diameter of the hull and the placement of the tile; the hull will make less noise while moving and of course will be harder to detect.

Strategy 4:

Start a short discussion among trainees.

This approach creates an involved atmosphere. It allows the trainees to focus their thoughts and attention into the material. It allows the trainees to share thoughts and impressions with each other and the instructor about what they do know and at the same time creates an awareness of what they don't know.
MOTIVATION

Let's talk about tools!

Tell me what types of tools are you familiar with?

Why do you suppose we have different types of wrenches?

Wrenches come in different types because we need to put in and take out bolts. This may require a wrench that is one size or an adjustable wrench. We may need a wrench that has a limited swing area or a wrench that won't slip easily.

In this lesson, you will learn about these and many other advantages and disadvantages of the tools you can select to do your work. If you have selected the right tool, your job will be that much easier.

Strategy 5:

Use unpredictability or surprise.

This strategy startles the trainee and creates a level of tension or anxiety that lends itself to motivating the trainee to pay close attention. The trainee doesn't want to be surprised or put in an unpredictable position, therefore, his five senses are on the alert. This is an excited learner.
MOTIVATION

The purpose of this lesson is to learn how to protect yourself, your surroundings and your fellow workers when using welding tools...

(enter foreman)

Excuse me but I need to just quickly check this room for safety hazards. I didn't get here before class started. What, what is this? You don't have eye protection, hearing protection, head protection gear in here and you are going to discuss safety! Where are your welding shields? (have actor looking around room moving and talking quickly) Where, where are your respirators? This is ridiculous! You can't be seriously thinking about teaching a course on safety! I'll have to write you up, Buddy. See me immediately after this class! Don't worry guys, I'll see that this equipment is brought in immediately! (exit actor)

You have just witnessed what could happen if you ignore safety precautions. This was a dramatization, but it happens.

Now, let's take a good look at safety in the welder trade.

Strategy 6:

Use humor.

This approach gets the trainees attention as well as shares an experience. The story will be remembered as something the trainee prefers not to have happen to him on a job. This, then, heightens the trainee's senses to pay attention.
MOTIVATION

How many of you guys have ever tried to fix the bathroom sink when it wouldn't drain? Well, I recently tried to fix our bathroom sink and let me tell you, I felt like Dick Van Dyke had come back to life in my body. Everything I did was wrong. First, I needed to loosen the gooseneck from the pipe coming out of the sink. So I went to my trusty tool box only to find that I didn't have a pipe wrench. So, I took my hammer and I banged on the pipe and of course I broke it. Fortunately I had turned the water off, however, I was immediately drenched from what was still in the pipe. By this time, my wife is fussing because I've made a mess on her floor! Forget that I'm covered in water, grease, and hair! So I go to the hardware store and I buy a new gooseneck and a pipe wrench. Well now, I'm cooking right! Wrong! I have a strap pipe wrench. These are used on machined surfaces and critical piping. So back to the store I go and I get the adjustable pipe wrench. I am now cooking! But now I really pull a Dick Van Dyke! I put the gooseneck on backwards. It is jammed in tight! I pull and pull trying to get it off and wham! The whole sink comes off the wall. My wife really started fussing then, so I calmly go to the phone, call Sears and tell them to send a plumber and a new sink over right away! Well, this little adventure cost me about $387.68 including the gooseneck and the adjustable wrench I bought to fix the sink myself.

Tell a humorous story.

NOTE: This strategy could be used as the introduction to a videotape.
However, every story has a bright side. I did learn the difference between an adjustable wrench and a strap wrench!

And you will learn this and more before this class is over! So when you have to fix your bathroom sink, you'll know what tool you need!

Strategy 7:

Relate the learning to other interests.

This strategy motivates because the trainee's attention is pulled into another interest. A parallel is drawn between the interest and the topic to be learned. The trainee's attention is caught by another interest and held throughout the instruction.

Example

Eye Protection Video Script

A man is drilling a hole in a surface with a portable drill. He has eye goggles on his eyes.

A close up of the drill making a hole in a piece of metal.

Protection of your eyes is very important both on the job as well as at home when you are performing home repair or hobby projects.

The drill bit could break and fly up in your eye causing injury. You would be immediately rushed to the dispensary for emergency care if your eye is injured. However, if your eye is protected with eye goggles and/or shield, you will need to shake off the fear that just rushed through you and continue with your job.

A close up of a man drilling a hole at home to put up a curtain rod.

Even at home, proper eye protection that we just learned about for on the job use would be important.
Eye Protection Video Script (Cont.)

Close up on a pair of eyes without goggles.
Our eyes are very important to us. We use them every moment we're awake.

Close up on a pair of eyes with goggles.
Wearing safety goggles takes very little effort to ensure protection from injury or loss of a very important part of our body whether we are doing a repair on the job or repair at home.

Strategy 8:
Tell the student what he will learn and why it is important to learn it.

This approach gets right to the point and catches the attention of the trainee up front. The trainee is told why the topic is important thus focusing the attention immediately. This approach creates an intense feeling within the trainee.

Example

INSTRUCTOR GUIDE

OUTLINE OF PRESENTATION

MODULE 1

INSTRUCTOR/STUDENT ACTIVITY

MOTIVATION

You are going to learn how to end-seal a dead-ended cable during this lesson. A dead-end cable is a cable that is disconnected at one or both ends. You are going to learn to cover the end to insulate the conductors to prevent moisture from entering the cable and to reduce the possibility of shock hazards. If a cable has not been dead-ended, it can be very hazardous to an individual who might pick it up and not realize it is connected to a power source. A cable not properly dead-ended could cause a fire onboard the ship that might endanger the lives of several hundred workers.

Tell the students what they are going to learn and why it is important they learn it.

NOTE: This strategy could be used as the introduction to a videotape.
MOTIVATION (Cont.)

You will learn all about how to deadend a cable, tag out a power source and to take appropriate safety precautions in this lesson.

Strategy 9:

Ask questions and require the learner to respond.

This strategy creates anxiety in the trainee. It catches his attention and causes him to focus on the lesson content.

Example

MOTIVATION

This lesson is about turning and twisting tools. Let's start by me asking you some questions and you giving the answers.

What is meant by calibrate?

Answer:
To check or adjust the graduations of a measuring instrument.

What is a ratchet?

Answer:
A mechanism that prevents turning in one direction.
MOTIVATION (Cont.)

What is torque?

Answer:
A twisting force.

What are some types of twisting or turning tools you can think of?

Answer:
Wrenches and screwdrivers.

These questions give you an idea of some of the terminology and types of tools you will learn about in this lesson.

Strategy 10:

Give the students a pre-test on the material to be presented.

This approach not only gets the trainee's attention but also gives a preview of the important points to be covered in the course.
Strategy 11:

Present an open-ended demonstration and follow it with learner observations, explanations and theorization.

This approach catches the students' attention and creates some anxiety about having to provide information back to the instructor. Therefore, the trainee's attention is focused on the content.

Example

<table>
<thead>
<tr>
<th>MOTIVATION</th>
<th>INSTRUCTOR/STUDENT ACTIVITY</th>
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<tbody>
<tr>
<td>Motivation</td>
<td>Present an open-ended demonstration and follow it with learner observations, explanations and theorization.</td>
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<tr>
<td>Motivation</td>
<td>Demonstrate the end-sealing process. Don't talk.</td>
</tr>
<tr>
<td>Motivation</td>
<td>Do each step in proper sequence and make all safety precautions very evident by dramatizing them.</td>
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<tr>
<td>1. Ensure de-energization</td>
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<td>2. Measure cable diameter</td>
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<td>3. Select cable ends</td>
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<td>4. Remove armor</td>
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<td>5. Remove outside insulation</td>
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<tr>
<td>6. Clean cable conductors</td>
<td></td>
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<td>7. Cut conductors</td>
<td></td>
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<tr>
<td>8. Select conductor end caps</td>
<td></td>
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<tr>
<td>9. Install conductor end caps</td>
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<tr>
<td>10. Verify safe usage of heat source</td>
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INSTRUCTOR GUIDE

OUTLINE OF PRESENTATION

MODULE 1

INSTRUCTOR/STUDENT ACTIVITY

11. Install heat shrinkable tubing
12. Verify safe usage of heat source
13. Install cable ends
14. Verify safe usage of heat source

Now, tell me the steps you saw me perform.

At the end of the demonstration, ask students to give you the steps. Write them on the chalkboard.

Strategy 12:

Pose a problem related to the lesson objective and allow the students to present possible solutions by working in small groups.

This approach creates an involved and somewhat tense environment. This excites the trainee and focuses his attention on the lesson material.

Example

VIDEO

NARRATIVE

Basic Hand Tools Video Script

Scene of historic shipyard happening. (i.e., Delaware entering drydock)
Historic scene of surface preparation. (i.e., Craftsman using hand tools)
Modern ship in shipyard. (i.e., Surface prep in progress)
Cramped surface area onboard ship. Small area to be cleaned.
Sanding blasting
Worker reading job assignment.
Worker selecting correct hand tool.

From the earliest days of ship overhaul...hand tools have been used in preparing surfaces for painting...
Today...hand tools are still being used when the area to be cleaned is not easily accessible or is too cramped to use power tools...the job is too small to justify bringing in power tools...or other methods are not available...
When you are given an assignment to prepare such a surface for painting, you should be able to choose the
Basic Hand Tools Video Script (Cont.)

Worker using hand tool showing tool tied to worker's belt.

Worker removing loose rust, old paint, other loose adhering contaminants.

Worker's feeble attempt to remove weld spatter with paint scraper.

Worker using paint scraper, chipping hammer, wire brush, putty knife, abrasive cloths and papers.

Worker checking over hand tools, the head of the chipping hammer, the edge of the paint scraper.

correct hand tool for that particular job...use the tool properly...and use it safely...

Hand tools, however, have limitations and are suitable only for cleaning away loose rust and scale...old paint...and other contaminants that are easily removed.

Tightly bonded paint...rust...scale...or weld spatter...may be too difficult to remove with hand tools. Therefore, other methods for removal should be used.

In this lesson, you will see how paint scrapers...chipping hammers...wire brushes...putty knives...and abrasive cloths and papers...are used to remove certain contaminants.

And, you will see how to check the different hand tools to make sure they are in good condition...

Stop tape and break students into groups to discuss problems seen in tape.

Example

INSTRUCTOR GUIDE

OUTLINE OF PRESENTATION

MOTIVATION

Okay, in this lesson, you will learn to read and interpret blueprints. You may or may not have seen blueprints before. You will definitely see them a lot as you perform repairs on ships. I'm going to begin by dividing you into small groups. Each group will have a blueprint. What I want you to do is identify the infor-

Pose a problem related to the lesson objective and allow the students to present possible solutions by working in small groups.

Give the students a blueprint and block titles and ask them to identify the information blocks on a
The above strategies are examples of how motivational strategies help the instructor secure the attention of the trainee. However, once the trainee's interest has been aroused the instructor must use some other motivational strategies that will excite the attitude or behavior of the trainee.

**Develop Interest into Desire**

Although the instructor guide doesn't mention the word motivation after the beginning of the presentation, concern about motivation does not begin and end here! Now that the trainee's attention has been obtained, the instructor/instruction must develop that attention into interest. This is done through the presentation and learner activities. Some methods for this are:

- Vary teaching strategies — use demonstration, display samples of finished work, display charts, ask questions, have short discussions throughout the lesson.
- Control the time spent on different phases of lesson. Change methods or strategies before interest wanes because of boredom.
- Make preparations in advance in order to avoid student idleness. If students must wait for directions, tools or work assignments, they become bored.
- Offer constructive encouraging criticism. Point out mistakes and show how the work should have been done. The manner in which this is done is important. Be specific about what is wrong, pay attention to your tone of voice and avoid the verb "to be," e.g., don't say "you are wrong," say "the answer selected is wrong." This brings focus to the problem and doesn't make a statement about the goodness or badness of the person.
Sustain the Desire to Learn

Now, the instruction has secured the trainee's attention and developed the attention into desire. Motivational strategies are still needed to sustain that desire to learn. In order to do this the trainee must feel there are benefits in learning this material. The instructor can show the trainee that specific benefits can be anticipated as a result of learning efforts. Some ways to do this are to explain that:

- The marketable skills acquired from the module will help him secure jobs.
- The trainee might expect to advance regularly within a chosen field due to this training.
- As a well-trained worker, he will be better prepared for promotions to positions of responsibility.
- The developed ability to use tools and skills will help make work easier at work and at home.
- Pride in this craftsmanship is very important.
- Satisfaction of performing useful work and producing a useful product is very rewarding.

These types of motivational strategies can be interspersed throughout the instruction as the instructor moves from one phase of the lesson to the next. The instructional developer and instructor should note these in the presentation outline to ensure the technique is used.
Summary

Motivation is more than a statement in the Instructor Guide that says "Motivate the students" or "Explain why this course is important". It is an intrinsic behavior that must be activated by a variety of strategies. Motivational strategies are a challenge to the instructional developer and to the instructor. They take some careful thought and preparation, but they will bring rewards tenfold as the students become excited and interested. This in turn will keep the instructor "motivated" to do a great job.
A quick glance at the literature and studies that have been published about learning indicates that motivation is a very important feature of instruction and should be carefully considered during design, development and implementation of instruction. "At its most basic functional level, learner motivation is the effort people put into learning something. However, learner motivation occurs as an interactive process. It is a dynamic integration of what the person brings to the learning situation and what the instructor offers in terms of content and the manner in which material is presented." (Wlodkowski, 1985)

Leighbody and Kidd (1968) assert that motivation of the learner to receive instruction is a part of the preparation required for a lesson. The best laid plans of a teacher may fail to result in successful learning unless the learners are physically and mentally ready to learn. This state of readiness cannot be created by the teacher at will. It must develop from within the learner. The teacher merely takes advantage of such a state. However, the teacher can do certain things to encourage a state of readiness on the part of the learner for each new learning effort.

Berdeaux and Borden (1984) feel motivation is probably the most basic element of learning. It makes the learner want to know, to understand, as well as, to increase or acquire new skills. They state that it is up to the teacher to discover what motivates the student, to find ways to keep those desires alive and to use them in the learning process. They cite some examples of an adult student's motivation as: the need for security, the need for better skills on the job and the need for self-esteem.

Sloane and Jackson (1974) say that one of the most common complaints about learning environments concerns the "lack of relevance." The topic is said to have no relevance to modern society or to the learner's needs. They state that "it is not only irrelevant but irreverent to make people spend a large proportion of their time to do nothing." Nothing, they feel, is quite so irrelevant as taking a lesson, course or class and not learning. Yet, people are coerced or conned into sitting in classes, in which they spend their valuable time and do not learn what somebody has paid for them to be taught. This affirms the impact a dull, boring or monotonous lesson can have on the learner as well as the loss to the organization paying for the training.

Bell and Abedor (1977) continue this vein of thought by declaring that the interest of the learner in what he is about to learn is one of the most important, yet neglected, aspects of successful instruction. They maintain that the learner needs an orientation or to be presented a "big picture" of what he is about to learn so that he can relate this to what he already knows. If this component of instruction is ignored or given little attention, instructors soon hear complaints of "irrelevant," "don't know why we have to learn this stuff," and "this is boring." Also Bell and Abedor (1977) assert that research in the area of audiovisual module design indicates that students will learn with greater efficiency and effectiveness if they are told why it is important to learn the material and exactly what they are required to learn. With this much support in literature about the need for consideration of motivation in the development and implementation of instruction, it is evident that Berdeaux and Borden (1984) were quite accurate with their observation that "underlying the educational process at all age levels, is the need for teachers to know their students - their backgrounds, motivations, personal characteristics and capabilities." The wise teacher will use such factors as curiosity, desire for teacher approval, desire for group approval, and other day-to-day interests in order to stimulate enthusiasm for learning (Leighbody and Kidd, 1968).
REFERENCES


