This paper describes a contract approach to teaching a graduate course in educational psychology at Kent State University. The instructor, operating from a set of four premises, offered students a choice of differentially weighted project tasks, with specific criteria, which must total a minimum of 50 points. Options included a film critique (5 points), library research (30 points), book critique (20 points), and a group oral report (15 points). Any student not attracted to the options could offer alternative suggestions and negotiate for points. Next, each student signed a contract agreement statement. Finally, each student was asked to complete an extensive questionnaire evaluating the course, contract, and the attainment of course objectives and to complete the Bills' Index of Adjustment and Values, indicating their contract choice so that variables related to choice could be studied. In conclusion, the instructor plans to keep contract options only for those students who can demonstrate subject area mastery at both lower and higher levels of the cognitive domain. (PD)
ANALYSIS OF A CONTRACT APPROACH
IN A GRADUATE UNIVERSITY COURSE

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The notion of student contracting is hardly of recent vintage. Students implicitly develop contracts in every course they take with every instructor they encounter. What is perhaps different is the attempt to make the contract explicit. Instead of regarding the process of "psyching out the prof" as a legitimate learning experience we instead have stated explicitly what earns what in terms of quality and quantity. Since students frequently experience anxiety with grades, they often begin a course with a "need" for an A or B (for graduate students whom I teach exclusively). Quickly they try to learn what earns the grade they need. Regardless of how insidious the effects of the system may be, we're sometimes forced to maneuver within such an imperfect system. Therefore, to make the system a more explicit and visible one, I have developed a contract arrangement.

The contract approach operates from a set of premises. In the first place, I am assuming that there are a variety of cognitive-affective styles of learning among the students taking a graduate course in educational psychology. Second, that most students prefer to exercise some freedom of choice as long as the limits are well defined. Third, that students feel better about a course and instructor when they are permitted certain choices that result from a narrow base of knowledge both about subject area and the processes involved. And finally that most students will choose a mode of operation from a position of some perceived strength and hopefully mold constructively from that.
The graduate level educational psychology course at Kent State is entitled, "Learning Theories Applied in Education," and is part of a core requirement for Master's students in education. With a mean age of 29.36 years, most students are currently employed in the public schools. Hence, the course is offered in the late afternoon and evening in a two and a half hour block once a week for ten or eleven sessions for three quarter hours credit. Although almost all have taken an introductory psychology or introductory educational psychology course, most have not fully internalized and applied these basic psychological principles. However, the variability in intelligence, skill, experiential background and knowledge is enormous. The contract was a partial attempt to deal effectively with this variability.

Each student selected from a contract "menu" tasks which totaled a minimum of 50 points. Through differential weighting of the various project tasks and specification of maximum number of different tasks, students were forced to choose more than one type of project. Here were the options:

- critique of research article (5 points) - maximum of four
- film critique (5 points) - maximum of two
- experiment outside of class (30 points) - maximum of one
- library research (30 points) - maximum of one
- case study analysis (30 points) - maximum of one
- book critique (20 points) - maximum of one
individual oral report in class (20 points)
maximum of one

group oral report (15 points)—maximum of one

classroom demonstration or experiment (20 points)
maximum of one

questions over text chapter or readings according
 to Bloom’s taxonomy (15 points)—maximum of one

One student, for example, chose to perform an experiment
outside of class (30 points) and give an individual oral re-
port (20 points). Another student chose to view two films
(10 points); complete a library research project (30 points)
and critique two research articles (10 points). Students
who were not attracted to any of these format options were
encouraged to suggest an alternative and negotiate an equit-
able number of points. Not surprisingly, few students sug-
gested a new option. Deadlines were imposed differentially
on the various tasks according to the amount of time and
work I felt was involved; however, the earliest project was
due the fifth session and the latest the seventh session in
a typical ten session quarter. Each student signed the
following statement: "I agree to complete the contract as
indicated above within the specified deadlines in accordance
with the guidelines specified in class and/or in writing."

In general the student had to demonstrate relevance
of the project to himself and to the course domain, per-
sonal involvement (where applicable) and some problem sol-
vling skills. Specific criteria for each of the tasks were
given to the students with a criteria checklist of questions
they were to ask about their projects upon completion. For
example, here are the guidelines for several of the project choices:

Experiment Outside of Class—Attempt to alter the behavior (academic, social or personal) of an individual through using any technique/theory related to the course domain. Use any theoretical position covered in the text/class or even select one not covered but of interest to you. Pre- and post data or evidence must be collected in order to document change. Changes or lack of them must be carefully analyzed and interpreted. Implications must be drawn and defended. It is possible to effect changes in a matter of days or a couple of weeks using some of the techniques. To assist you in stating objectives in behavior terms, see any one of the following books... Here is an outline you should follow:

(a) hypothesis, question or statement of problem
(b) pre-data
(c) treatment or what you did to effect change
(d) post-data
(e) analysis and interpretation
(f) implications for the field

Library Research—It's best to begin with a question you wish answered. Or you may begin with a hypothesis that you wish to prove or refute. State the question or hypothesis in your paper at the outset. Critique the literature in such a way that your opinions are carefully delineated from the research studies yet are carefully articulated with them. Try to integrate and resolve contradictory findings. Concentrate on more recent studies (if possible) and document carefully. Be willing to go out on a limb and defend your thoughts, feelings, ideas, attitudes. Combine objective reporting of the facts with subjective analysis, interpretation and implications.

Case Study Analysis—Take an individual who is a problem to you or to someone else and analyze in terms of one or two theories. How would the theorist(s) analyze, interpret and resolve the problem? If you take two theorists then indicate which you think is superior in analyzing and resolving the problem. You must demonstrate knowledge of the theory and how it can be applied in this particular case. Note that the case history need be only minimal but sufficient enough to obtain a feel for the individual.

Critique of Research Articles—Summarize and critique four research articles from professional journals that bear directly on the course content and which were published within the past five years. Ideally, the four articles should attempt to answer a question you may
have; however, they can all four be in four diverse subject fields, if you prefer. Be sure to choose articles that supply data. Use the following outline: (a) hypotheses; (b) method or design; (c) findings; (d) your analysis and interpretation; (f) implications that you draw from the studies. Look for what's good as well as for what's bad. Justify why it's good or bad. Here are a few journals others have used successfully...

Book Critique-Select a book published within the past ten years that you have not read but that you feel will be of value to you in this field. Carefully summarize the author's main thesis or hypotheses, discussing each major idea concisely and eruditely in terms of importance, relevance and validity to the field and to you! What did you derive from reading it? What are the implications for either following or not following the author's thesis?

Film Critique-Preview critically two films from the KSU collection or any source that bear directly on the course content. Read the written guide if one is available. Emphasize the content rather than the technical aspects. If one is boring or of little value, then choose another. Speak to the film's merit, value, relevance, validity and ability to communicate it's message. Would you recommend it to your colleagues and why? What did you gain personally and professionally from viewing it? How might the film be used? You may choose films related or diverse. Give a concise summary of the film prior to your critique. Indicate the source, length, and date. If you feel it's dated, then choose a different film.

Individual Oral Report-Present an entertaining and highly informative presentation to the class or selected group (such as provocative research finding, highly innovative teaching strategy, etc.) with opportunity for rebuttal. An outline must be provided for the professor in advance. It must be related in some way to the course content.

Group Oral Report-Three members of the class are to give an interesting or unusual presentation of material that takes off from the course content yet articulates well with it. The presentation should be as unique as the content. Some groups have used the following: demonstration, experiment, role playing, interview, videotape as a possible vehicle for presentation. It must be highly informative and relevant to the needs of the
group presenting it. Rebuttal must be built into the program. The contribution of each member must be quite apparent in the preparation and presentation. An outline in advance should be given to the professor.

During the last session of the course subsequent to project evaluations but prior to the announcement of course grades, each student was asked to complete anonymously an extensive written forced-choice and open-ended questionnaire evaluating the course, the contract and the attainment of course objectives which had been distributed at the beginning of the course. In addition, to study some variables related to choice, such as self-concept, each student was asked to complete, also anonymously the Bills' (IAV) Index of Adjustment and Values and indicate on this form their contract choices.

Here are the responses from the contract evaluation questionnaire:

"Which statement best reflects your feelings about the contract":

- liked it very much 29%
- liked it 42%
- neither liked nor disliked 13.5%
- disliked it 17.5%
- disliked it very much 0.0%

"In terms of continuation of the contract or not, indicate which best reflects your feeling":

- keep it as is (alter nothing) 34%
- keep mostly as is but make certain changes 54%
- about 40% - 60% need revision 9%
- discard most of it 1.5%
- discard all of it 1.5%
Suggested revisions were so varied that no summary statement may be made. The discrepancy between 17.5% stating that they disliked the contract and 12% who suggested revising or discarding it may be partially attributed to the 9% who answered the first question but who did not answer the second.

When asked if they thought there were any inequities in the number of points assigned to the various projects, 58% indicated they should be left as is and 42% suggested that changes should be made. Again, the responses were so varied, no suggestion was clearly in the majority except that most thought certain projects should carry more weight rather than less weight.

When students were asked on the questionnaire, "What is your best educated guess as to why students selected as they did?" 65% said it was a matter of habit, security and doing what is most familiar. No other explanation came remotely close to this one. However, when asked, "Why did you select as you did?", no one reason had a clear majority. However, the highest number (23.8%) said it was a desire to try new methods in course work.

The percentage of students choosing various options were:

- critique of research articles (47.5%)
- book critique (45.1%)
- library research (20.7%)
- experiment outside of class (19.5%)
- questions over text/readings (14.6%)
An analysis of variance of project choices and the Bills' IAV revealed no significant differences between choices or any of the measures of the scale: self-concept, self-acceptance, ideal self or discrepancy between self and ideal self.

Six cognitive goals and eight affective goals were stated, some behaviorally, on the questionnaire that purports to evaluate the attainment of course objectives. Each student checked in the appropriate column the extent to which he/she felt the goal was attained: none, somewhat, moderate, a great deal.

In comparison with cognitive goals, twice the percentage of affective goals were attained moderately or to a great deal by 80% or more of the students. Here are the responses of students to some of the goals that appeared to be attained to the greatest degree by the largest percentage of students:

<table>
<thead>
<tr>
<th>Cognitive Goal</th>
<th>None</th>
<th>Somewhat</th>
<th>Moderate</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate mastery of the basic concepts &amp; principles of learning theories.</td>
<td>0</td>
<td>17.6</td>
<td>64.7</td>
<td>17.6</td>
</tr>
<tr>
<td>Apply concepts &amp; principles to new and practical situations.</td>
<td>0</td>
<td>12.5</td>
<td>50.0</td>
<td>37.5</td>
</tr>
</tbody>
</table>
feel you are involved constructively in your own learning. 6.2 0 18.7 75.0

feel that attempts of other students and the professor to help you to learn are at least satisfactory. 0 11.8 29.4 58.8

be eager to learn more about the areas covered in class. 5.5 11.1 33.0 50.0

desire to cooperate with other members of the class to reach an understanding of the material. 0 6.2 43.7 50.0

Responses to the evaluation questionnaire still leave many unanswered questions. Contamination may account for some of this. For example, it is difficult to separate out feelings toward the instructor and contract choices. Extensive instructor written evaluations of the projects, which the students stated they read and found of considerable value could be a confounding influence on the students' evaluations of the contract and their evaluation of attainment of the goals of the course. Perhaps instructor personality is the overriding variable, not only as a contributor to students' attitudes toward the contract, but also in terms of students' feelings toward attainment of course objectives. Another source of possible contamination is that some of the cognitive-affective objectives might have been attained prior to the course and not as a result of it. Nor do we know which
objectives relate to which aspects of the course. For example, does a specific contract option more likely provide the means to fulfill certain cognitive and affective goals than another option does? Or can task variables be completely separated from individual differences? In essence, then, there's no evidence that the contract approach is more efficient and effective than other approaches in attaining specific goals.

Most of the contract options tended to be loaded more at the higher levels of the cognitive domain. If knowledge and comprehension of subject matter are prepotent over analysis and evaluation, then true freedom to select options comes only through demonstrated mastery at the lower levels of the cognitive domain. This may explain, in part, why many students without evidence of mastery of subject matter did not feel comfortable exploring in depth through a contract option until the quarter was nearly terminated. Perhaps contract options that expand experiences at the lower levels of the cognitive-affective domains may be needed to provide sufficient success experiences so that students begin to perceive strength.

There is also the question of feeling free to choose options. Perhaps some of the variability in contract choices can be attributed to individual differences in risk-taking behavior. No doubt there's an interaction between risk-taking behavior and level of competence in a specific subject field. But this needs to be explored further. However, we
can still wonder if the apparent freedom to select doesn't reinforce students' weaknesses rather than their strengths. If our purpose is to help students remediate some of their weaknesses, then it's mandatory that they feel free to select alternate strategies that may more likely characterize an area of weakness than strength. Obviously then there must be positive reinforcement for risk-taking behavior. And one wonders how to encourage this within the confines of a mandated A-B-C grading system. Since only 37% stated they would choose differently had the system been pass-fail, one can only surmise that other variables related to ego-enhancement may be operating. Perhaps the reinforcing aspects of successful significant mastery learning plus a wider range of experience options at all levels of the cognitive-affective domains would offset the many years of being conditioned in a linear, non-mastery, single course lecture type organization where self-direction has neither been encouraged nor rewarded.

Although the contract options did appear to unleash a few students, and for that reason alone may be justified, I do not feel that it is panacea for all students. Considering the vast amount of time I had to invest in evaluating several hundred written projects each quarter, I now plan to keep the contract options only for those students who can demonstrate subject area mastery at both lower and higher levels of the cognitive domain. However, this does not preclude the possibility of planned experiences for those students who demonstrate mastery only at the lower levels.