

1941

An Extension of Kirkendall's Study of Incentives in the Motivation of Children

Lyle K. Henry
Iowa State College

Mary J. Brand
Iowa State College

Copyright © Copyright 1941 by the Iowa Academy of Science, Inc.
Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Henry, Lyle K. and Brand, Mary J. (1941) "An Extension of Kirkendall's Study of Incentives in the Motivation of Children," *Proceedings of the Iowa Academy of Science*: Vol. 48: No. 1 , Article 97.
Available at: <https://scholarworks.uni.edu/pias/vol48/iss1/97>

This Research is brought to you for free and open access by UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

AN EXTENSION OF KIRKENDALL'S STUDY OF INCENTIVES IN THE MOTIVATION OF CHILDREN¹

LYLE K. HENRY AND MARY J. BRAND

THE PROBLEM

This study was concerned with the incentives which motivate children, with particular reference to sex and age differences. The questionnaire used was one formulated and used by Lester A. Kirkendall in his study of the influence of certain incentives in the motivation of 284 pupils in grades 4, 5 and 6 in the New Britain, Connecticut schools.² The purpose of our investigation was to extend the data to include pupils of the upper grade levels and to compare the results with those of Kirkendall. This problem was conducted with the assistance of students in a class in the psychology of motivation at Iowa State College.

PROCEDURE

Following was the questionnaire used in our study. The first 25 items were taken directly from Kirkendall while the last five were added by the present investigators. Kirkendall found individual items of the questionnaire to have satisfactory reliability by the test-retest technique and by changing the order of choices A and B.

The investigators administered the questionnaire to 423 pupils selected somewhat at random from grades 7 through 12 in four Iowa schools. The results for the 212 students in grades 7, 8 and 9 were thrown together, as were the 211 in grades 10, 11 and 12.

MOTIVATION INVENTORY

Age..... Grade..... Sex.....

Answer by encircling A or B *at right* for your choice.

1. I would study hardest on a lesson if my teacher told me that:

- a) Usually younger pupils do this work and I surely should be able to do it
- b) Usually this work is done only by older pupils but she thinks I can do it

A B

¹ The writers acknowledge the help of teachers and pupils in the schools of Ames, Radcliffe and Gilbert, Iowa, in collecting data for this study.

² Kirkendall, L. A., The influence of certain incentives in the motivation of children. *Elem. Sch. J.*, 1938, 38, 417-424.

2. I like to study best when my teacher makes me feel that:
 - a) The lesson will be short and easy
 - b) I can use the knowledge in some interesting thing I am doingA B
3. I would study hardest on a lesson in which I knew:
 - a) The teacher would only ask questions of members of the class
 - b) I was to make a report before the classA B
4. When the teacher has scolded me for doing poor work, I feel
 - a) Like doing no more work in the subject
 - b) Like working harder so I will do better next timeA B
5. I think I would study hardest when I had been promised that I could:
 - a) Have a longer gym period in which I could play games I like
 - b) Get out early to see the school team play football or basketballA B
6. Suppose you have done something wrong and the teacher has made fun of you before the class. How would you most likely feel?
 - a) Angry that the teacher has scolded you before the class
 - b) Sorry that you have misbehavedA B
7. Suppose you have done something to disturb the other members of the class. Which would make you feel more sorry?
 - a) To have your classmates disapprove of what you have done
 - b) To have the teacher tell you that you have done wrongA B
8. I think I would behave best if I were:
 - a) Told that misbehavior would result in punishment
 - b) Trusted and put upon my honorA B
9. I think I work hardest in school when:
 - a) I like the teacher with whom I am working
 - b) I may be punished if I do not workA B
10. For which reason would you most likely try to be at school on time?
 - a) It would spoil the good attendance record of your room
 - b) Pupils who are tardy have to stay in at recess to make up the timeA B
11. If some of the pupils in my room were contesting against some others in the room, I would work hardest if:
 - a) The boys were in one group and the girls in another
 - b) Each group had both boys and girls in itA B
12. I would study hardest:
 - a) If I was in a contest and my group was trying to beat another one
 - b) For a high mark on a testA B
13. If I am in a contest I work hardest when:
 - a) My group is a little ahead
 - b) My group gets a little behindA B
14. Suppose you had written an especially good composition in English. Which would you like better?

- a) To be given some reward by your parents
 b) To have the theme, or composition, displayed in a school exhibit A B
15. When I prepare my lessons, I prefer to:
 a) Leave the hard part to the last
 b) Do the hardest parts first A B
16. For which of the following reasons would you study hardest?
 a) To get a prize if you pass the work this term
 b) To make good marks so you could hold a good job when you are out of school A B
17. I study hardest when:
 a) There is to be an examination soon
 b) My teacher praises me A B
18. As a reward for hard study in school I would prefer to have time given for:
 a) Some interesting thing I might do by myself, as reading or drawing
 b) A contest of some kind A B
19. Suppose as a punishment for some misconduct at home you were given your choice of two punishments. Which would you choose?
 a) To work at something, such as mowing the lawn, for fifteen minutes
 b) To sit quietly in a chair for fifteen minutes A B
20. In case of misconduct at home, suppose your mother scolded you. Would you most likely feel:
 a) Sorry for what you had done
 b) Angry that you had been scolded? A B
21. Suppose your father scolded you. Would you most likely feel:
 a) Angry that you had been scolded?
 b) Sorry for what you had done? A B
22. Suppose you are punished at home. Would you prefer to be punished by:
 a) Father?
 b) Mother? A B
23. Which pleases you more when you have made good marks?
 a) To be given praise before the class
 b) To know yourself that you have done good work A B
24. For which would you work hardest?
 a) Money to spend as soon as you earned it
 b) Money to put into savings A B
25. I am most likely to study hardest after my teacher:
 a) Praises me
 b) Scolds me A B
26. If an experiment is to be performed in class I would rather:
 a) Do the experiment myself
 b) Have my teacher perform the experiment as a demonstration A B
27. I would study harder for a test if I knew that I would receive as a reward:

- | | | |
|-----|---|-----|
| | a) A money prize | |
| | b) Praise from the teachers | A B |
| 28. | As a reward for good work in school I would prefer to be praised by my teacher: | |
| | a) in front of the class | |
| | b) individually | A B |
| 29. | I would work harder if I knew I were to have: | |
| | a) A quiz every week | |
| | b) Only six weeks examinations | A B |
| 30. | I will work harder because I: | |
| | a) Want to do well | |
| | b) Am afraid of failing | A B |

RESULTS

The results for the three age groups are summarized in Table I. This table is to be interpreted by referring to the corresponding statements in the questionnaire. For example, in item 1a, 34% of the boys in grades 4, 5 and 6 indicated they would work harder on a lesson if told that *younger* pupils usually did the work. This means, of course, that the remainder of the 100%, or 66%, answered 1b. To reduce the size of the table only the percentages for choice A are given. From this table age and sex differences can be noted.

The answers given to Item 1 indicate that the motivating power of competition with older pupils is stronger than competition with younger pupils. This motivation appealed more to senior high school pupils than any others studied and the senior high school girls responded to this motivation more than boys.

Item 2 shows that pupils, especially senior high school girls, much preferred to study when the knowledge is usable in an interesting activity than when the lesson is easy.

Item 3 demonstrates that pupils of all ages, and particularly girls, study harder when they are to give a report for the class than they do for class questions.

Item 4 illustrates the reaction to scolding by their teacher. Re-approach from the teacher for poor studying makes the pupils study harder the next time. Scolding is more of an incentive to girls than to boys, and to younger rather than older girls.

Item 5 shows that the majority of elementary school pupils would study harder when promised they could have a longer gym period rather than to see the school team play, but junior and senior high school pupils were more motivated by watching the school team play than by personal participation. Girls desire to participate in games steadily decreased as they increased in age.

Table I. *The Percentage of Each Sex and Grade Group Checking Choice A.*

Item	Grades 4, 5 and 6			Grades 7, 8 and 9			Grades 10, 11 and 12		
	Boys 152	Girls 132	Both 284	Boys 109	Girls 103	Both 212	Boys 110	Girls 101	Both 211
1 a	34	38	36	28	23	26	28	13	21
2 a	26	26	26	17	15	16	22	13	18
3 a	20	27	23	32	22	27	24	11	18
4 a	15	9	12	36	12	25	26	15	21
5 a	45	72	57	34	32	33	41	28	35
6 a	28	14	21	61	45	53	56	39	48
7 a	25	30	27	61	67	64	59	68	64
8 a	18	26	21	18	10	15	14	13	13
9 a	76	75	76	92	96	94	93	97	95
10 a	72	84	77	65	84	74	65	84	74
11 a	44	37	41	50	43	46	55	32	44
12 a	18	17	17	41	38	40	43	41	42
13 a	28	28	28	16	10	13	20	16	18
14 a	36	34	35	27	18	23	24	8	17
15 a	25	22	24	34	25	30	31	33	32
16 a	14	8	11	2	7	4	10	5	8
17 a	80	86	84	67	75	70	79	75	77
18 a	62	61	62	63	66	64	53	68	60
19 a	87	59	74	82	76	79	87	79	83
20 a	61	61	61	83	90	85	81	89	85
21 a	11	4	8	33	30	32	35	29	32
22 a	28	17	23	29	18	25	34	14	25
23 a	17	14	15	10	9	9	18	5	12
24 a	3	7	5	18	18	18	23	10	17
25 a	34	32	33	53	49	51	52	61	56
26 a				44	24	34	53	44	48
27 a				33	27	30	44	23	34
28 a				19	14	17	16	19	18
29 a				70	80	75	80	72	77
30 a				71	82	75	73	87	80

Ridicule by the teacher in front of the class, as shown by Item 6 would make the elementary school pupils sorry that they had misbehaved, but about half of the older pupils would be angry because of the public humiliation. In all grades, the girls were more sorry for their misbehavior than were the boys.

Item 7 indicates teacher reproof would make elementary school pupils more sorry than class disapproval. However, with high school pupils class disapproval was a much greater incentive than teacher reproof.

The value of modern methods of discipline is seen in the answers to Item 8. Pupils, especially those in high school, said they were motivated to good behavior much more when trusted and put on their honor than when threatened with punishment on misbehavior.

Item 9 shows that all pupils work harder when they like their teacher than when they are threatened with punishment if they do

not work. Younger children fear punishment more than older ones.

Item 10 reveals that the retention of the good attendance record of the room had a greater motivating influence upon all the grades than did staying in at recess. The girls of all grades were more anxious to keep up the record than the boys.

In Item 11 the girls signified their preference to compete in mixed groups, but the boys showed no preference in mixed groups or sex segregation in contests.

Item 12 discloses that all pupils deemed their own personal grades more important than the grades of one's contest group; however, individual honor was much more highly desired by elementary school pupils.

Item 13 points out that all pupils were motivated to work harder when their group was a little behind than when it was a little ahead.

With all pupils public recognition was more desired than parental reward, as indicated in Item 14. However, the motivation of public recognition was much increased in older pupils and especially in girls.

Item 15 demonstrates that all pupils preferred to do the hardest part of their lessons first rather than last.

How vastly important pupils consider vocational fitness is revealed in Item 16. Getting a good job later has a very much greater motivating effect on studying than prizes.

Item 17 shows that the expectation of an examination is much more of an incentive to study than is teacher praise.

Item 18 exhibits the preference of all pupils in something interesting to do by themselves, rather than a contest, as a reward for hard study.

In Item 19 is stated by all pupils the fact that confinement is regarded as a more severe punishment than working.

Items 20, 21, and 22 consider the reaction to scolding by parents. As a result of a scolding by either parent children feel more sorry for what they have done than angry that they have been scolded. Elementary school children feel more sorry when their father scolds them, while high school children feel more sorry when their mother scolds them. All the pupils and especially the girls, preferred punishment by mother to punishment by father.

Item 23 makes apparent that pupils much prefer as a reward for good work the personal satisfaction which it brings to praise given them before the class. Particularly the girls from grades 10, 11 and 12 were pleased by this feeling of self-approbation.

According to the answers given for Item 24 all pupils are motivated to work harder for money to put into savings than for money to spend immediately. With the pupils from elementary school this was especially true. With age increase the incentive was weakened.

Item 25 indicates that elementary school pupils are more strongly motivated by reproof than by praise, while high school students are slightly more motivated by praise than by reproof.

Item 26 shows that junior high school pupils prefer to have the teacher do the experiments rather than to do them individually, and that senior high school pupils have no particular choice. In all grades the girls wanted the teacher to perform the experiments.

Item 27 points out that all high school pupils prefer as a prize, teacher praise to money, however senior high school boys were nearly equally divided on this issue.

That individual praise has a much greater motivating influence on all high school pupils is shown by Item 28.

Item 29 indicates that frequent quizzes are more of an incentive to study than examinations covering longer periods of time.

Item 30 shows that individual desire to succeed has a greater motivating effect for working than has fear of failure; this is especially true of girls.

SUMMARY

This study was conducted to discover factors that would induce students to work harder in school. The method employed was the questionnaire developed by Kirkendall. According to students own reports the following factors would seem especially significant for teachers of high school students:

1. Children work harder when they are made to feel adequate.
2. Social stimuli are powerful but must be used carefully.
3. As girls grow older they tend to prefer being spectators of games instead of participants.
4. A teacher can get far better results by being on good terms with students than by use of punishment.
5. Reward by parents is not as effective as social recognition.
6. The examination still induces students to work.

DEPARTMENT OF PSYCHOLOGY,

IOWA STATE COLLEGE,

AMES, IOWA

and

GRAND JUNCTION PUBLIC SCHOOLS,

GRAND JUNCTION, IOWA.