

Changing thoughts, feelings and urges

Abigail B. Calkin, Ph.D.
Private Practice & Consulting
Gustavus, Alaska

www.abigailbcalkin.com

- ◆ Write positives about yourself.
- ◆ This also may be all the positive things or events you can think of.
- ◆ Use one word or two at most.
- ◆ Abbreviations are good.
- ◆ 1-min timing

- ◆ Who are you?
- ◆ What do you do?
- ◆ What do you want to learn from this workshop?

Close Your Eyes

- ◆ When you look at the following, write the first word that comes to you.
- ◆ It will probably be a thought or feeling, but it may be an urge.















Write

- ◆ Thoughts, feelings, or urges
- ◆ 1-minute









Inner behaviors to change

- ◆ Choose an inner behavior pair of yours to change.
 - ◆ A positive behavior and its contrary
 - ◆ Two related positive behaviors
 - ◆ An inner behavior and an outer behavior
- ◆ Begin to count each of these behaviors.

Why do we study inner behavior?

"Observations of the objective world depend on an experience which is just as private as the so-called subjective experiences. The public status of an observation is given by symbolic communication between observers...through the medium of language. By means of the same communication, our inner or subjective experiences can likewise achieve a public status."

John Eccles, 1970
Facing Reality

"For surely it is time that the effect of discouragement upon the mind of the artist should be measured, as I have seen a dairy company measure the effect of ordinary milk and Grade A milk upon the body of a rat."

Virginia Woolf, 1929
A Room of One's Own

Respondent Behavior

The actual respondent behavior is typically executed by glands that behave automatically in response to environmental stimuli by excreting chemicals into the bloodstream. The systemic after-effect of that chemical infusion is then detected in the form of feelings—mostly aversive in the case of bereavement. Apart from being felt, such changes to the body result in differences in the capacity of the body to execute certain operant behaviors....

Technically, the person's operant behavior is being executed by a body that is temporarily changed by the chemical after-effects of the respondent behavior that was executed by one or more glands.

Inner Behavior Defined

- ◆ Covert behaviors triggered by certain stimuli accessible to the individual alone
- ◆ Stimuli – private in the sense that they are not available to others, occurring within the individual
- ◆ Responses to these stimuli may themselves be public or private
- ◆ Two classes of private stimuli that can trigger inner behavior (Moore, 1995):
 - internal sensations (e.g., hunger, pain)
 - covert behavior (e.g., problem-solving, imagery, thinking, urges, attitudes, visualizations)
- ◆ Contact with such private phenomena constitutes a 'private event'

Definitions

Thought - an idea

Feeling - an idea with a mild physiological component

Urge - a respondent behavior

Depression - a decrease in the frequency of behavior

Your inner behaviors

- ◆ Look at the inner behaviors you chose.
- ◆ Do you need a revision?
 - ◆ More refinement?
 - ◆ Something else?
 - ◆ If you refined them, you probably need to begin the count again.
- ◆ When you develop an action plan, consider
 - ◆ Do you need to change?
 - ◆ What might the change be?

Historical Context

- ◆ Pavlov, *Conditioned Reflexes*. (1927)
- ◆ Skinner, *The operational analysis of psychological terms*. (1945)
- ◆ Lindsley, first inner behavior charts, 1966.

“A small part of the universe is contained within the skin of each of us. . . . No very good account is available, however, and it therefore seems all the more important that we should be in touch with it in other ways. We feel it and in some sense observe it, and it would seem foolish to neglect this source of information just because no more than one person can make contact with one inner world. Nevertheless, our behavior in making that contact needs to be examined.”

Skinner, 1974, p. 21

Radical behaviorism & inners

- ◆ Behavior - *all observable human action*, not all publicly observable human action
- ◆ “[Radical behaviorism] does not insist upon truth by agreement and can therefore consider events taking place in the private world within the skin. It does not call these events unobservable, and it does not dismiss them as subjective”
(Skinner, 1974, p. 16)
- ◆ Private and public behaviors operate in the same manner and, as such, are subject to the same laws.

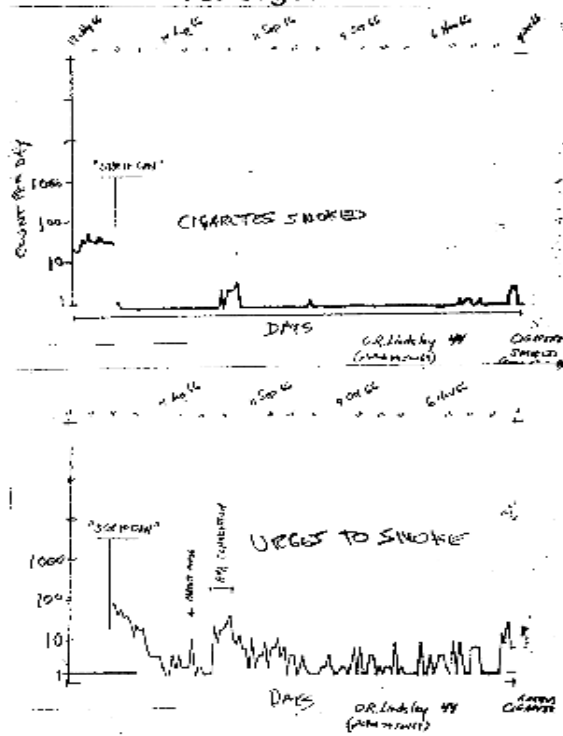
Inner behavior research

- ◆ Positive and negative thoughts and feelings
- ◆ Aggressive thoughts and feelings
- ◆ Substance abuse
- ◆ Bereavement behaviors

Positive and negative inner behavior research

- ◆ Behavioral self-management using Precision Teaching-directed behavioral techniques
- ◆ Increasing our awareness of positive and negative thoughts and feelings, thereby promoting general mental well-being

Cigarettes smoked per day Vs. Urges to smoke



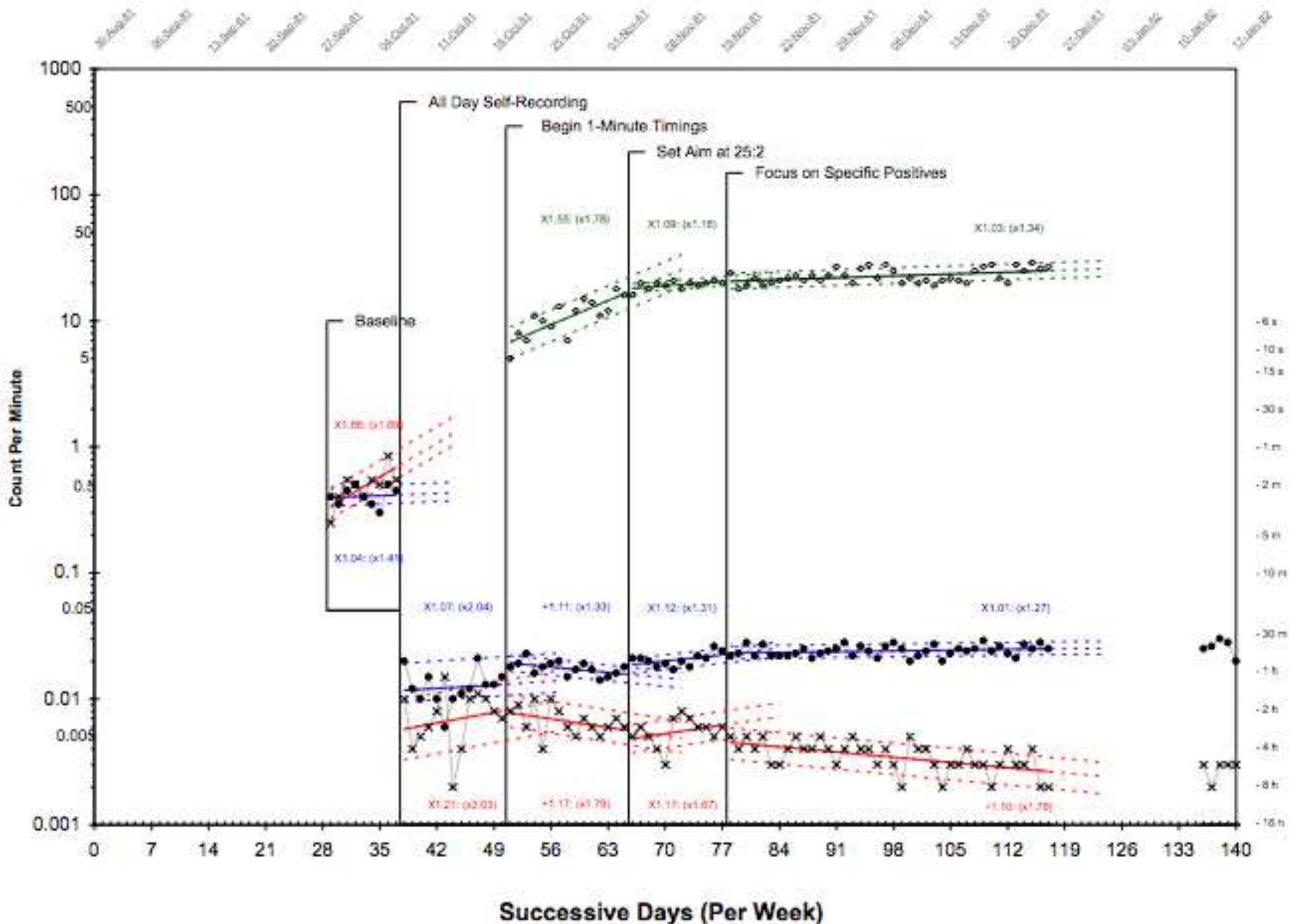
Notes and ideas:

Table 1. Inner Behavior Research Projects

Researcher	Date	Number of charts*	Number of people**
Behavior Bank	1971, 1974	219*	?
Sokolove	1973	281	281
Dean	1973	312	34
Calkin	1979	161	105
Calkin	1992	35	35
Kubina	1994	2	2
Kostewicz	2000	2	1
Clore	2006	0	10
Cobane	2006	27	22
Rich	2009	3	3
Patterson	2009	6	9
Total		1,048	502**

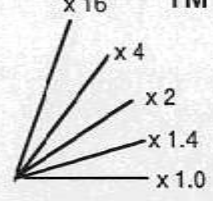
* Charts in the Behavior Bank in addition to those Sokolove and Dean deposited.

** Does not include the number of people from the additional projects in the Behavior Bank.



CALENDAR WEEKS

Actual Charts available from: BEHAVIOR RESEARCH CO.
 BOX 3351 - KANSAS CITY, KS 66103-3351 FAX ORDERS 913 362
 5900



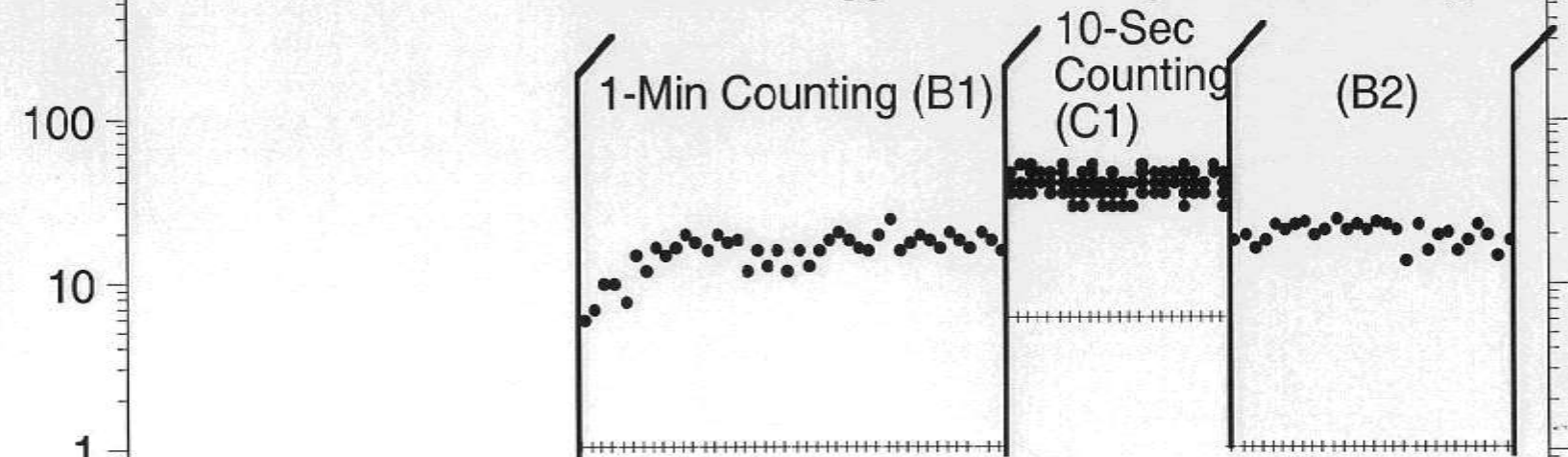
13 | Oct 96 10 | Nov 96 8 | Dec 96 5 | Jan 97 2 | Feb 97

Dy Mo Yr Dy Mo Yr Dy Mo Yr Dy Mo Yr Dy Mo Yr

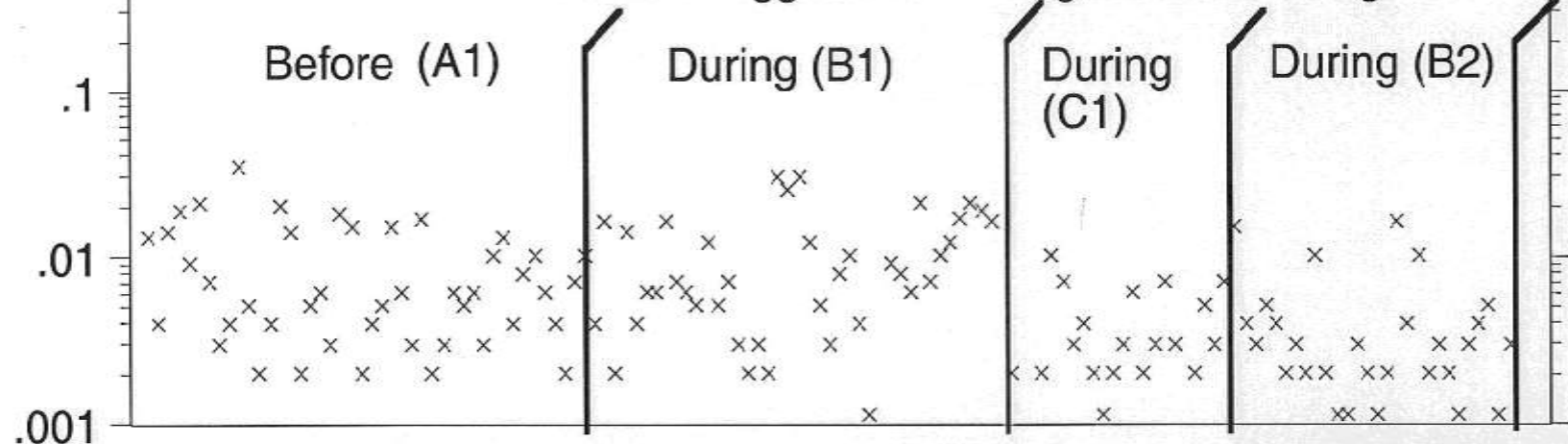
0 4 8 12 16 20

COUNT PER MINUTE

Counts of Non-aggressive Thoughts and Feelings



Counts of Aggressive Thoughts and Feelings



0 14 28 42 56 70 84 98 112 126 140

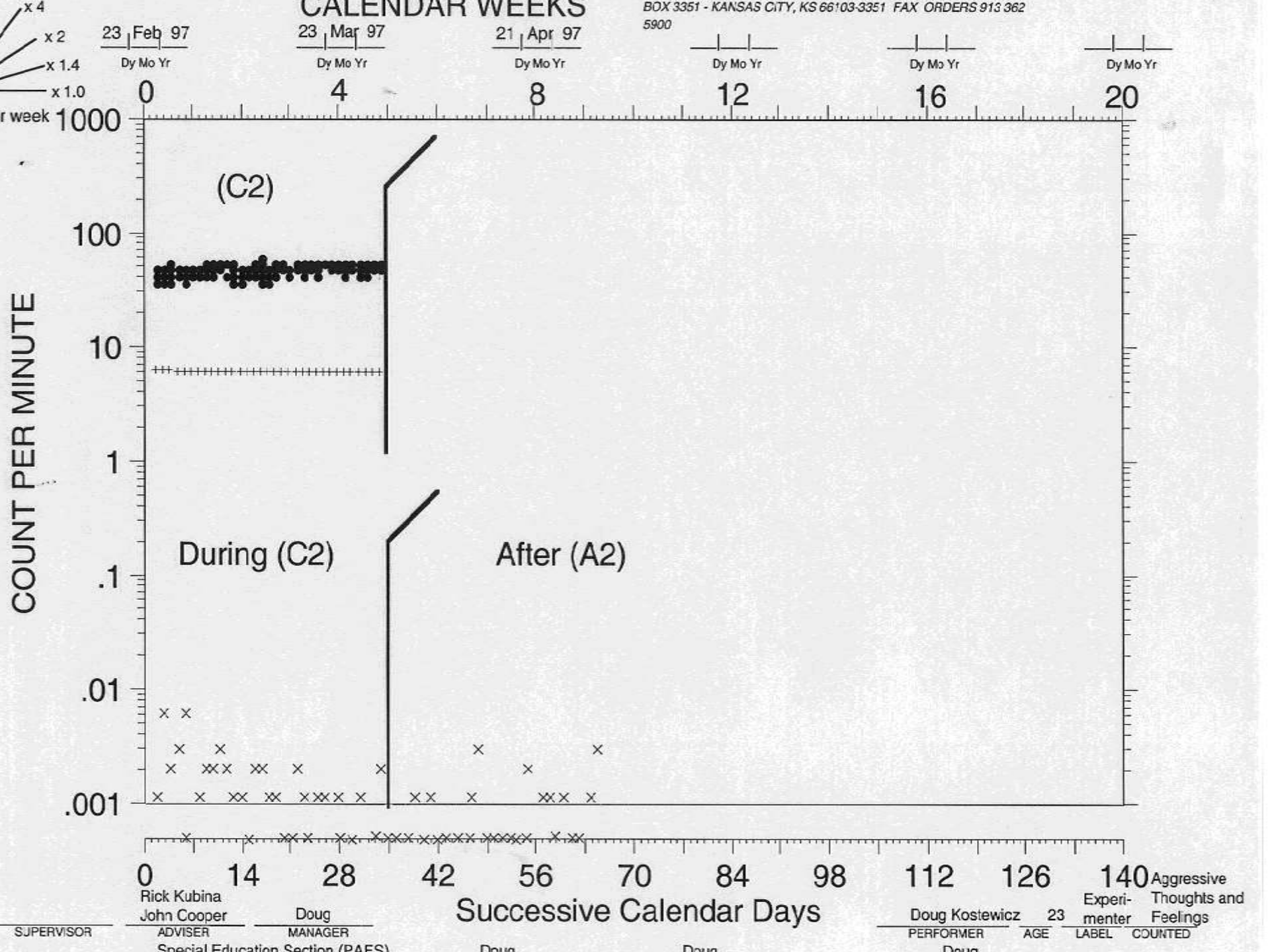
Rick Kubina Doug Doug Kostewicz 23

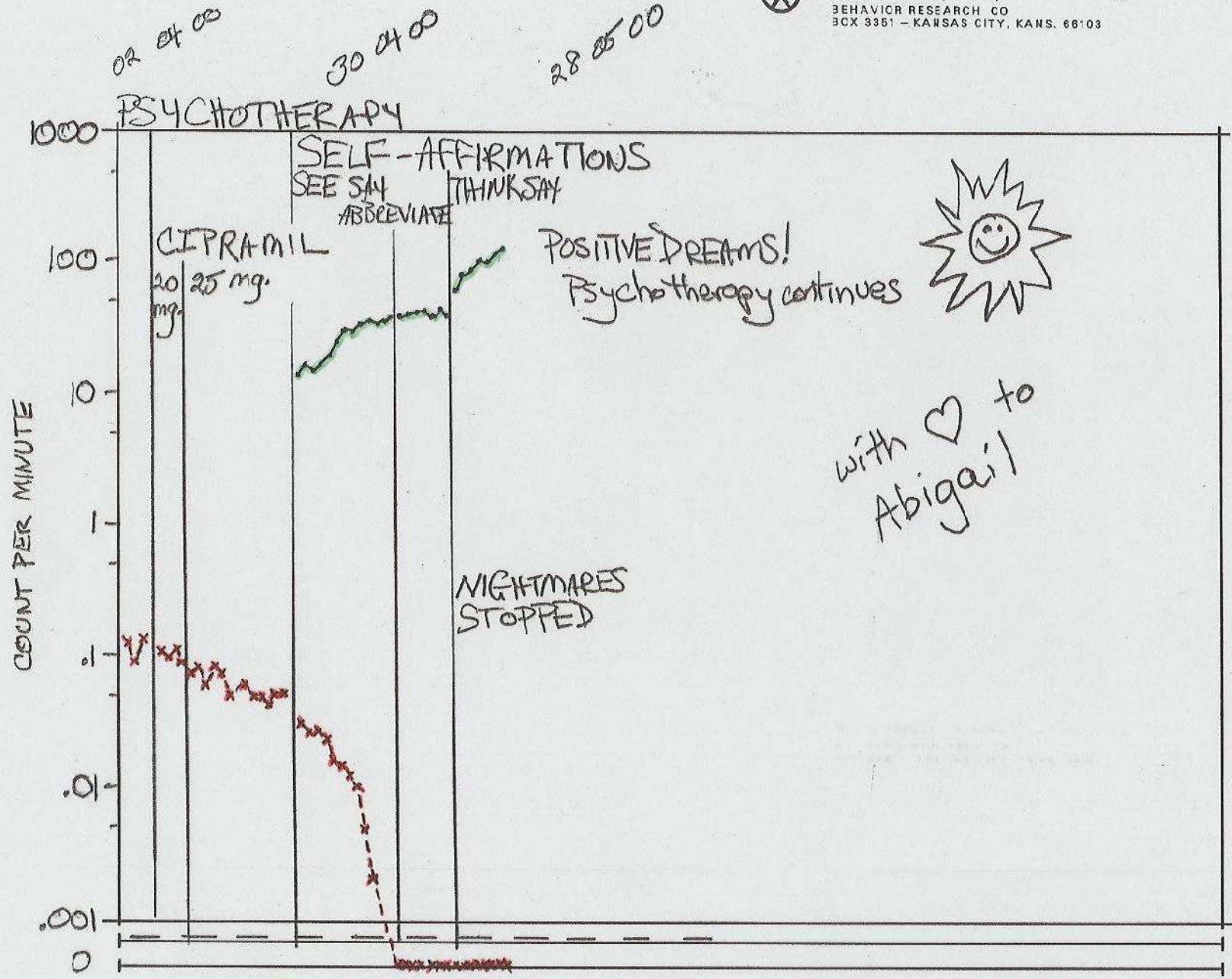
John Cooper Experimenter

Successive Calendar Days

Agg Tho
Fee

- ◆ What are Doug' s choices?
- ◆ What should he do next?
- ◆ Write it down.
- ◆ Share it with your neighbor.





A.B. CALKIN A.B. CALKIN JUDY

JUDY 21+ SELF-AFFIRMATIONS

Action Plan

- ◆ Ideas
- ◆ What is your acceleration behavior?
- ◆ What is its pair, or deceleration behavior?
- ◆ What might you use if you need to change the frequency or celeration?
- ◆ How do you decide when to intervene, e.g., use the 1-min timing?
- ◆ When do you not use an intervention?

Frequency Variability

	CO	COUNTER	INDEPENDENT
Academic (1999)			
BD (n = 1035)	313 (30%)	476 (46%)	246 (24%)
Regular Ed (1883)	644 (34%)	654 (35%)	585 (31%)
Learning Center (172)	54 (31.3%)	59 (34.3%)	59 (34.3%)
Behavior (1999)			
BD (168)	54 (32%)	73 (44%)	41 (24%)
Inner Behavior (1992)	1343 (38.5%)	1118 (32%)	1025 (29.5%)

- ◆ 1-min timing on your positives
- ◆ You may repeat but don't copy or perseverate!

Kathy's inner behaviour charts

Aims of self-management exercise:

- ◆ Establish self-management of positive and negative inners using Precision Teaching-directed behavioural strategies
- ◆ Examine and evaluate techniques' effectiveness in terms of frequency of positive and negative inners recorded (increase positive inners & reduce negative inners)
- ◆ Prevent depressive symptoms

Definition of target behaviours

Reported positive and negative inner behaviours, namely thoughts and feelings

Positive thoughts = positive self-observed ideas not accompanied by a physical sensation as to suggest individual's own conviction in thought

Positive feelings = pleasant emotional states, often accompanied by a physical sensation related to feeling

Negative thoughts and feelings = inverse of the above

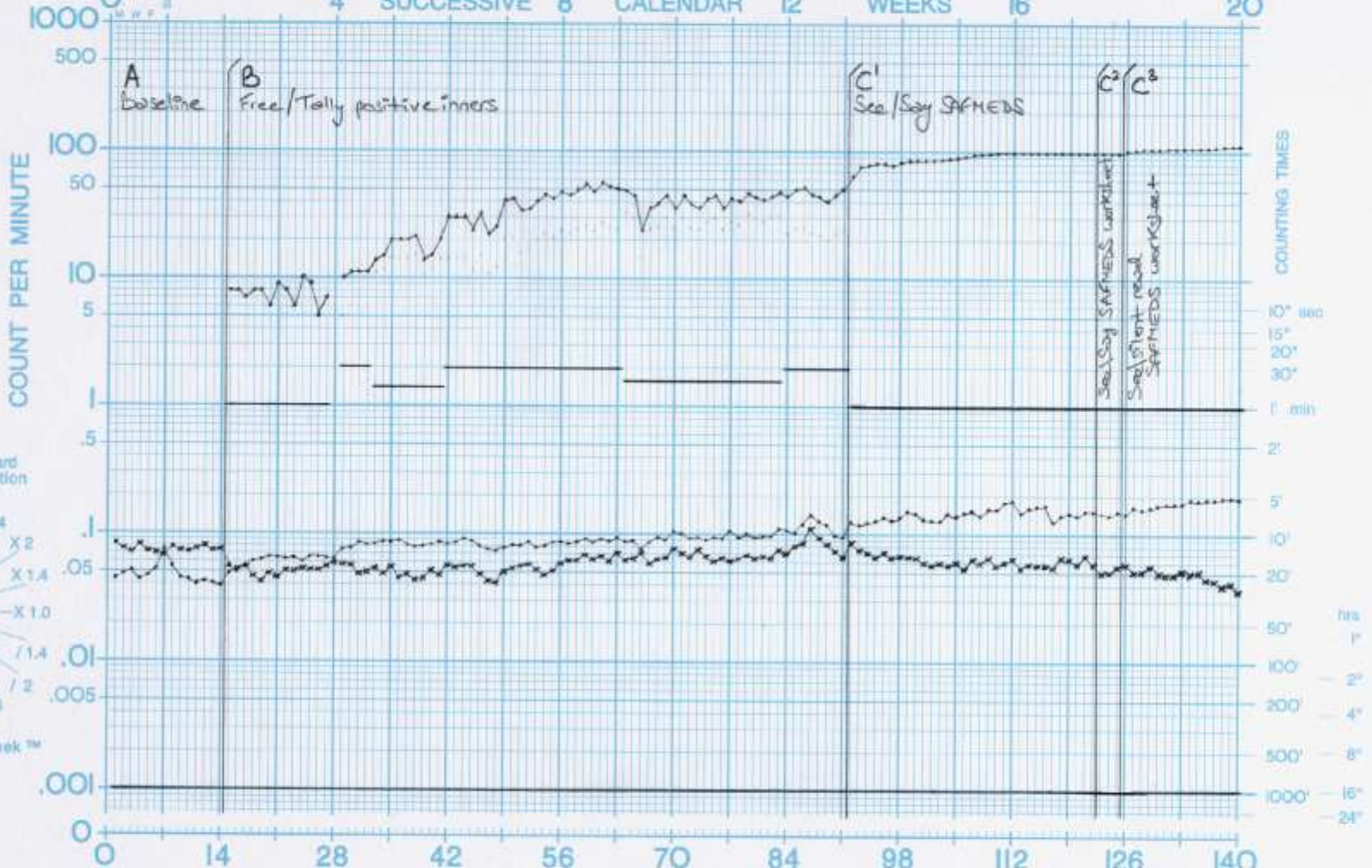
Dpmin-11EC

DAILY per minute CHART™

 ONLY FOR RADON DETECTOR Calibration Chart - Series 11EC
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107 9977 KANSAS CITY, MO 64110-0391

18 03 01
15 04 01
13 05 01
10 06 01
08 07 01
05 08 01

4 SUCCESSIVE 8 CALENDAR 12 WEEKS 16 20



Standard deviation

X16
X4
X2
X1.4
X1.0
/1.4
/2
/4
/16
per week™

COUNTING TIMES

10⁰ sec
15⁰
30⁰
1 min
2⁰
5⁰
10⁰
20⁰
50⁰
1⁰⁰
2⁰⁰
4⁰⁰
8⁰⁰
16⁰⁰
24⁰⁰

MK SUPERVISOR
ADVISER
MANAGER

SUCCESSIVE CALENDAR DAYS

Kathy PERFORMER
Kathy COUNTER
Kathy CHARTER

POSITIVE + NEGATIVE COUNTED INNERS
Chart 1

- ◆ Think Write
- ◆ What would you do now?
- ◆ Why?
- ◆ Share

Dpmin-11EC

DAILY per minute CHART™



DAILY per minute Standard Calibration Chart - Dpmin-11EC
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05 06 01
DAY MO TH

02 09 01
DAY MO TH

30 09 01
DAY MO TH

28 10 01
DAY MO TH

25 11 01
DAY MO TH

DAY MO TH

0 4 SUCCESSIVE 8 CALENDAR 12 WEEKS 16 20

COUNT PER MINUTE

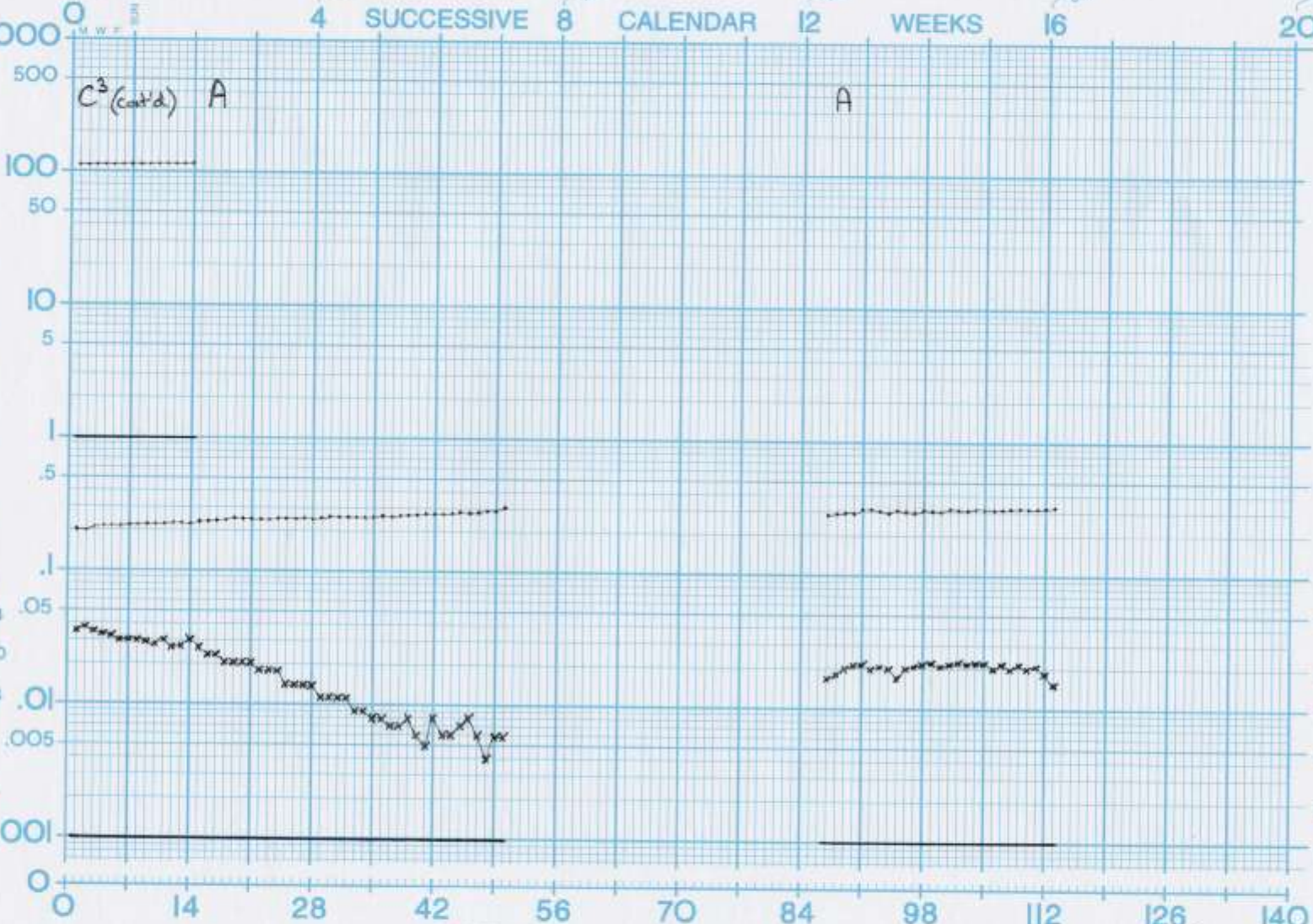
COUNTING TIMES

10⁰ sec
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20⁰
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1 min
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5
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100'
200'
500'
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24"

Standard
caleration
X16
X4
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X1.4
X1.0
/1.4
/2
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/16
per week™

C³ (cat'd) A

A



MK

SUPERVISOR

ADVISER

MANAGER

SUCCESSIVE CALENDAR DAYS

'Kathy'
PERFORMER

POSITIVE + NEGATIVE
COUNTED INNERS

ORGANIZATION

DIVISION

ROOM

Kathy
TIME

Kathy
COUNTER

Kathy
CHARTED

Chart 2

**Reducing bereavement-
related behaviours
through the self-
management of inner
behaviours**

Bereavement defined

- ◆ The deprivation created by bereavement leads to “the multiplicity of interrelated private and public behaviours that are observed following the death of a loved one” (Dillenburger & Keenan, 2001)
- ◆ Of these reactions to death, many of which increase in frequency (i.e., crying, talking and thinking about the dead person, anger, worrying about the future), depression is distinct since it results in both an increase and decrease of normal functioning.

Observable effects of bereavement-related depression

- ◆ Many observable behaviours normally in bereaved persons repertoire also become 'depressed.'
- ◆ Interests previously engaged in on a regular basis no longer take precedence and sometimes disappear completely (Calkin, 1990).
- ◆ In severe cases, symptoms can include disruption of eating and sleeping patterns, decreased energy, change in weight, difficulty concentrating, and suicidal thoughts (APA, 1994)

Dpmin-11EC

DAILY per minute CHART™

2 Sep 01

30 Sep 01

28 Oct 01

0 4 8 12 16 20 WEEKS

COUNT PER MINUTE

1000
500
100
50
10
5
1
0.5
0.1
0.05
0.01
0.005
0.001

DREAM
9-11

x135

Standard
celebration

X16
X4
X2
X1.4
X1.0
/1.4
/2
/4
/16
per week™

0 14 28 42 56 70 84 98 112 126 140

ABIGAIL B. CALKIN
SUPERVISOR ADVISER

MANAGER

SUCCESSIVE CALENDAR DAYS

ABIGAIL
PERFORMER

BEHAVES
COUNTED

ABIGAIL ABIGAIL ABIGAIL

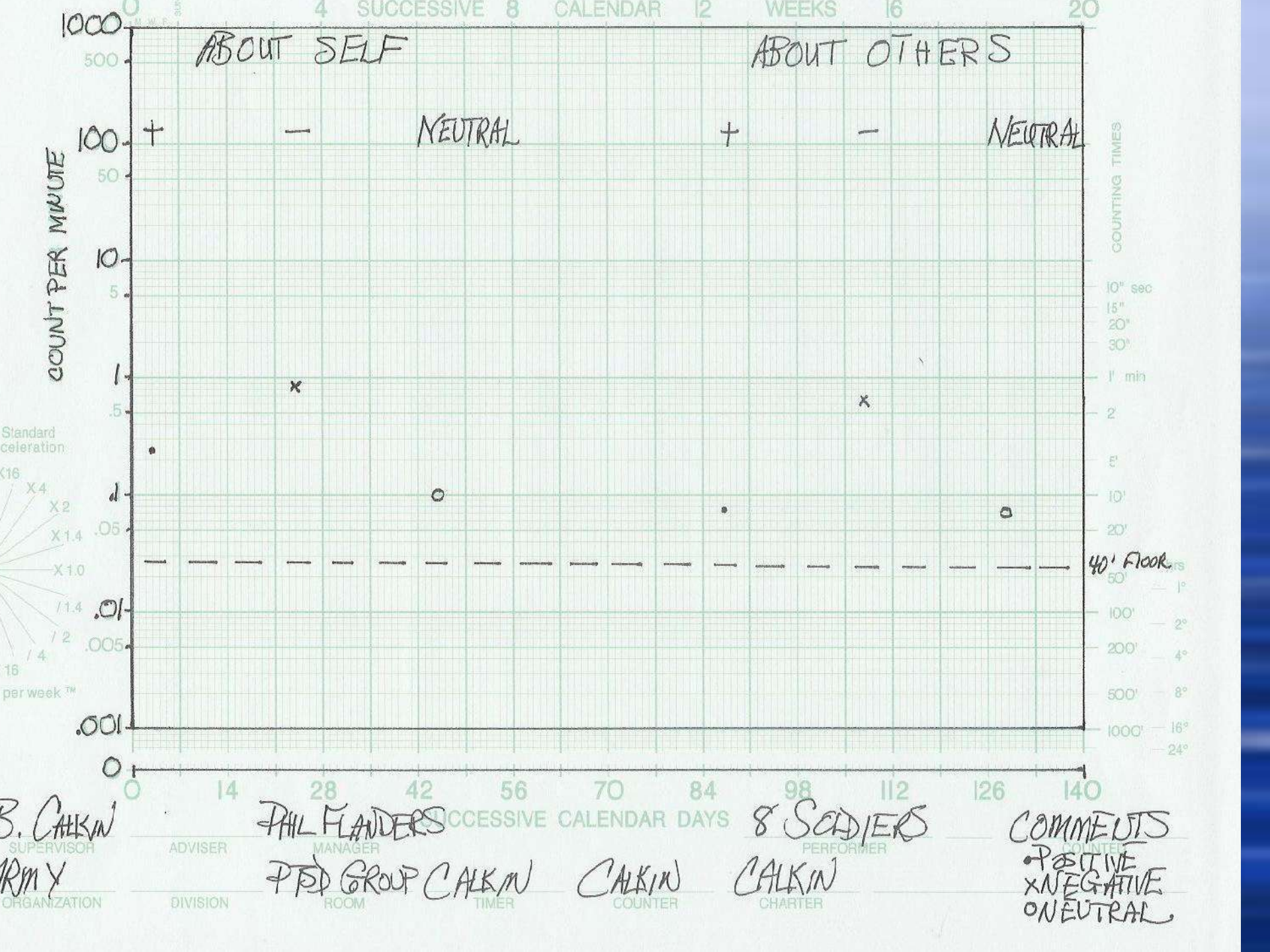
COUNTING TIMES

Behavioral definitions of depression

- ◆ Ferster (1973) - the reduced frequency of adjustive behavior, high frequency of escape and avoidance, and passive activity.
- ◆ Hayes, Strosahl and Wilson (1999) – ‘destructive normality’, highlighting the fact that such feelings are and should be accepted as the norm in our society.
- ◆ When these behaviors begin to impact adversely upon normal everyday functioning appropriate interventions are usually sought.

Interventions available

- ◆ Medication
- ◆ Psychological interventions
 - ◆ Counselling
 - ◆ Psychotherapy
 - ◆ Cognitive-behavior therapy
- ◆ Guerin (2001) highlights research suggesting that the cathartic nature of many therapies may actually prove more damaging than healing
(Bracken, 2001; Bracken, Giller & Summerfield, 1995, 1997; Raphael & Wilson, 2000; Summerfield, 1999; Watters, 2001).



COUNT PER MINUTE

COUNTING TIMES

10" sec
15"
20"
30"
1' min
2'
5'
10'
20'
40' Floor
50'
100'
200'
500'
1000'
16"
24"

ABOUT SELF ABOUT OTHERS

NEUTRAL NEUTRAL

0 14 28 42 56 70 84 98 112 126 140

B. CALKIN
SUPERVISOR
ARMY
ORGANIZATION

ADVISER
DIVISION

PHIL FLANDERS
MANAGER
PTD GROUP CALKIN
ROOM

CALKIN
TIMER
CALKIN
COUNTER

8 SOLDIERS
PERFORMER
CALKIN
CHARTER

COMMENTS
• POSITIVE
X NEGATIVE
O NEUTRAL

- ◆ Think Write what you would do next.
- ◆ Share.
- ◆ Give me your Think Write ideas. Put your USPO address on them if you want them back.

Behaviour analysis & bereavement

- ◆ Relatively little behavioural research related to bereavement and its treatment of related depression (Calkin, 1990, Dillenburger & Keenan, 1994, 2001; Sulzer-Azaroff, 1999; European Journal of Behavior Analysis – Special Section: Bereavement and Grief, 2001).
- ◆ Proactive research needed to address this knowledge gap (Dillenburger & Keenan, 2001)

Why the dearth of behavioural research?

- ◆ Investigating private behaviour often seen as a distinct challenge.
- ◆ Skinner (1957) “the investigator cannot readily point to the stimuli to which he must appeal in predicting and controlling behaviour” (p. 130).
- ◆ However, people are capable of recording their own behaviours, ***both overt and covert***. The growth of the inner behaviour literature is testament to this.

The role of Precision Teaching

- ◆ Self-monitoring and the utilisation of precision teaching based technologies has been demonstrated as a viable way forward.
- ◆ Promotion of self-management of behaviour using empowering, client-centred approaches.
- ◆ European Journal of Behavior Analysis (2001): more scientific research, particularly that which focuses upon the use of 1-minute timings of positive thoughts and feelings (Dillenburger & Keenan, 2001).

Definition of target behaviours

- ◆ Reported positive and negative inner behaviours, namely thoughts and feelings
- ◆ ‘Depressed’ observable behaviour- number of words written per day (Ph.D. thesis)

Measurement & Procedure

- ◆ Reported frequency of positive and negative thoughts and feelings throughout waking hours
 - ◆ Free/Tally learning channel using wrist counter
 - ◆ 1-minute counting periods – See/Say SAFMEDS w/s
- ◆ Number of words written per day
- ◆ Beck Depression Inventory (BDI) completed throughout investigation
- ◆ Daily Intensity Scale – 1 = 'awful' and 10 = 'excellent'
- ◆ All data presented on Standard Celeration Chart
- ◆ ABAB Single subject design

Dpmin-11EC

DAILY per minute CHART™

DAILY per minute Standard Celeration Chart - Dpmin-11EC
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BCK 2021 KANSAS CITY, MO 64103-2354

12 01 03
DAY MO TH

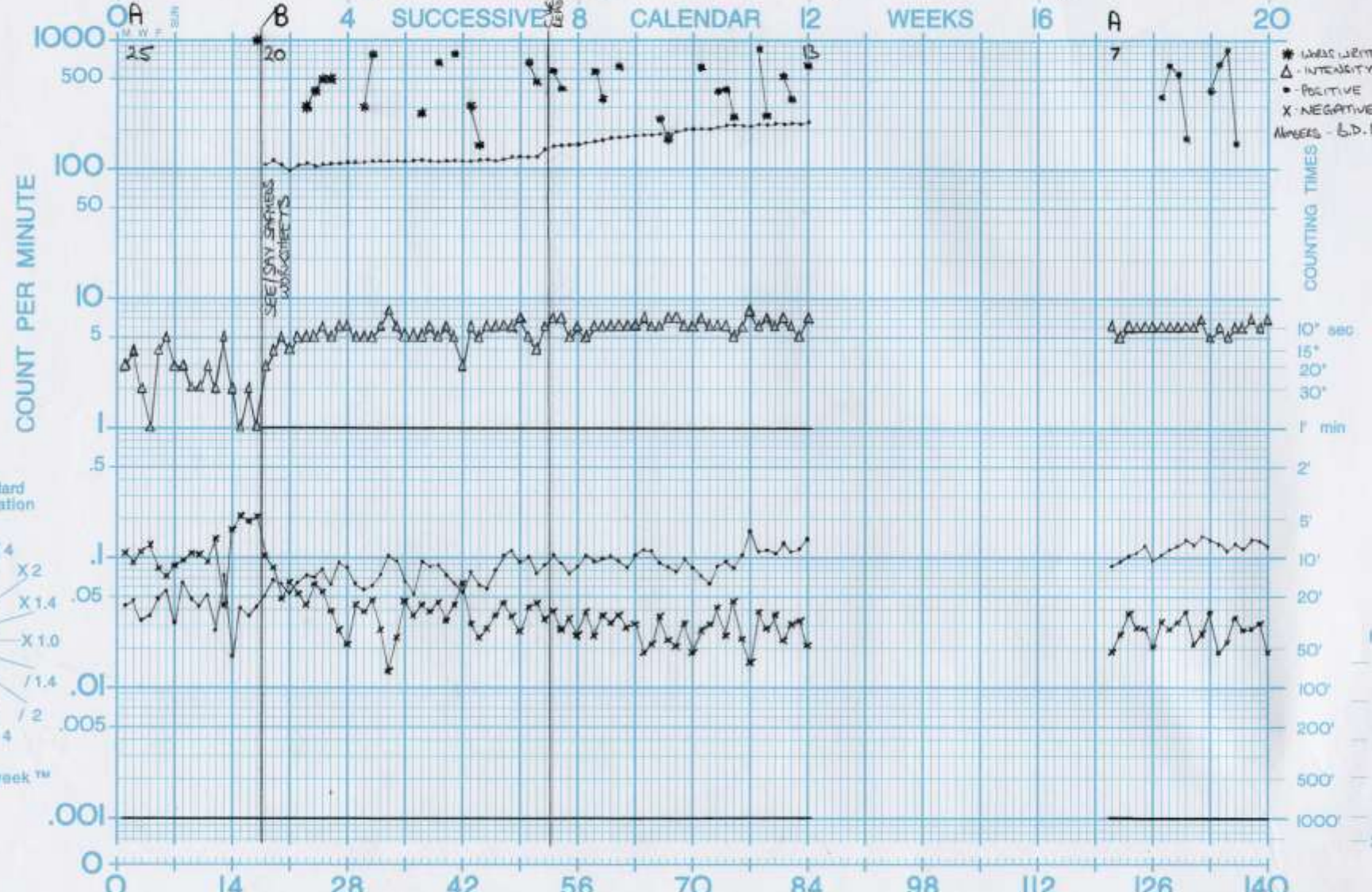
09 02 03
DAY MO TH

09 03 03
DAY MO TH

06 04 03
DAY MO TH

04 05 03
DAY MO TH

1 6 03
DAY MO TH



* WORDS WRITTEN PER DAY
 Δ INTENSITY MEASURE
 • POSITIVE INNERERS
 X NEGATIVE INNERERS
 NUMERS - G.D.I. SCORE

Standard celeration

X16
X4
X2
X1.4
X1.0
/1.4
/2
/4
/16
per week™

COUNTING TIMES

10" sec
15"
20"
30"
1 min
2
5
10'
20'
50' hrs
1
2
4
8
15
24

MK SUPERVISOR ADVISER EC MANAGER MH PERFORMER

ORGANIZATION DIVISION ROOM TIMER COUNTER CHARTER

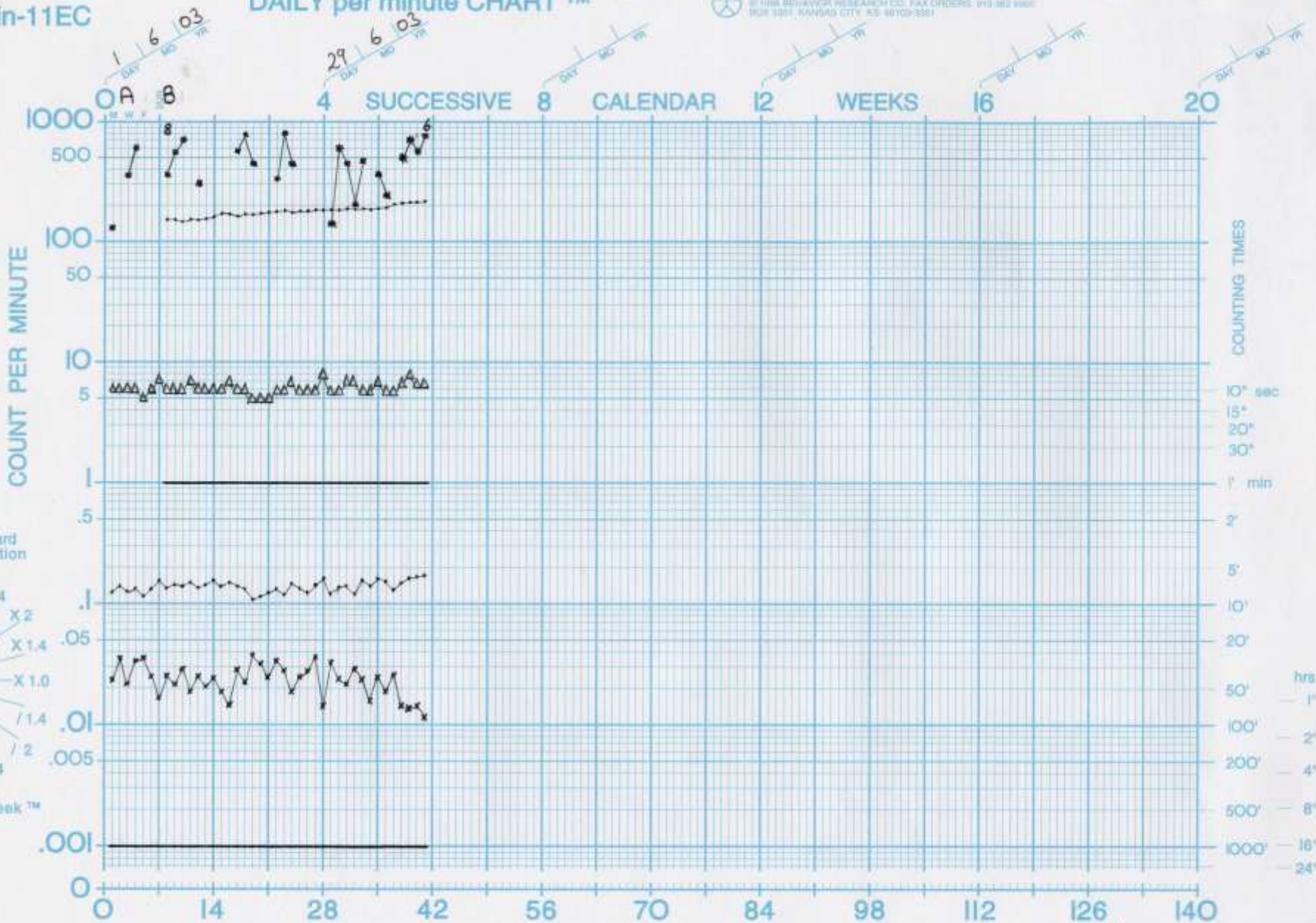
POSITIVE + NEGATIVE INNERERS
 + WORDS WRITTEN PER DAY
 COUNTED
 + INTENSITY MEASURE

- ◆ What are you going to do next?
- ◆ Why?
- ◆ Think Write
- ◆ Share

Dpmin-11EG

DAILY per minute CHART™

DAILY per minute Standard Calendar Chart - Dpmin-11EG
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MK SUPERVISOR
 EC MANAGER
 MH PERFORMER
 MH
 MH

ORGANIZATION DIVISION ROOM TIMER COUNTER CHARTER

POSITIVE + NEGATIVE INDEXES
 IF WORDS WRITTEN PER DAY
 COUNTED
 & INTENSITY MEASURE

Back to your project...

- ◆ Look at your project.
- ◆ What will you do next?
- ◆ Why? Explain your decision.

1-min timing on self-positives

What is your plan?

- ◆ 2 to 5 min to write it down
- ◆ Share it with your partner.
- ◆ Revise it.
- ◆ Share it with the group.

The way forward . . .

“Charting may be one of the few sensitive techniques that we have to keep track of . . . inner thoughts, feelings, and urges. It could be that precision teaching will ultimately provide man with the most good and the most help by being applied to his inner behavior. It is one of the few ways to chart and change inner behaviors.”

Lindsley, 1971, pp. 117-118