

The Durability of Behavior Change: Temporal Generality in Organizational Behavior Management

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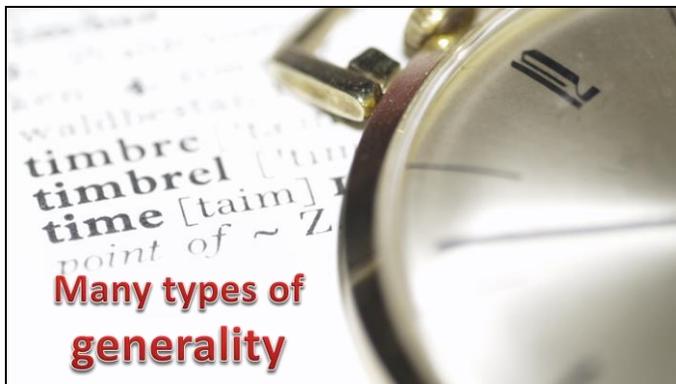
Association for Behavior Analysis International 42nd Annual Convention, Chicago, IL

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- Generality of behavior can include the extension of behavior change across settings, responses, and time (Foxy, 2013).
- Settings – when behavior established under one set of conditions appears under a novel set of conditions such as in training setting to the on the job setting
- Behaviors – when a targeted behavior such as wearing safety glasses increases and a non-target behavior such as wearing earplugs also increases
- Time – when behaviors persist after the intervention has been concluded

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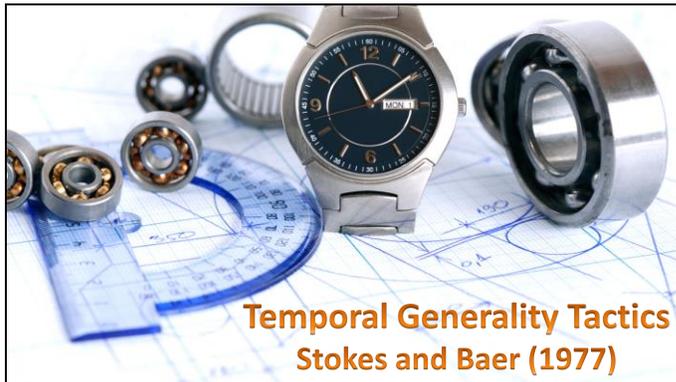
- Durability of change after consultants leave
- Without a lasting change in behavior there is little benefit to organizations hiring consultants. Performance improvements should not just last for as long as the consultant or researcher is present.

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- Maintenance is the durability across time in which the targeted behavior continues to occur after the intervention or the consultant or researcher has been removed from the setting.
- Institutionalization is the partial or full continuation of an intervention by the organization after the consultant or researcher has left the setting.

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- Stokes and Baer 1977: Five of these apply to generality across time
- We will only be focusing on those strategies that apply to generality across time: intervene and hope, sequential modification, introduce to maintaining contingencies, indiscriminate contingencies, and mediating generalization
- These five as well as all subsequent strategies will be referred to as temporal generality tactics.

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- Delivery of an intervention with no programmed efforts to promote generality.
- Not really a temporal generality tactic given it requires no intentional planning but must be included for the sake of its common occurrence.

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- This tactic has a very minimal level of analysis dedicated to promoting generalization. An intervention is implemented and then any generalization is assessed, if there is no generalization then additional interventions are conducted across conditions.
- The intervention is repeated until the behavior is reliably occurring across all settings. If it is observed to not be occurring at a later date then the intervention would be implemented again.
- Essentially this tactic is just the simple repetition of an intervention whenever generality fails to occur.

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- For this tactic, natural sources of reinforcement are identified and an intervention is designed to develop behaviors that will be maintained by these natural contingencies.
- This plan is limited to situations in which natural reinforcement exists at a level that can reliably maintain behavior.

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- This tactic uses reinforcement that is delivered on an intermittent schedule such that instances where reinforcement will or will not be delivered are undifferentiated to the recipient.
- Lottery or incentive programs are the most common of these tactics in the OBM literature.

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- This tactic accomplishes generalization through the use of verbal behavior such as rules.
- Rules and rule governed behavior are commonly used within multi-component interventions.

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- Sigurdsson and Austin (2006) conducted a review of institutionalization and their classification system proposed four additional tactics that could affect whether or not institutionalization occurred.

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- Three additional tactics that can promote temporal generality.

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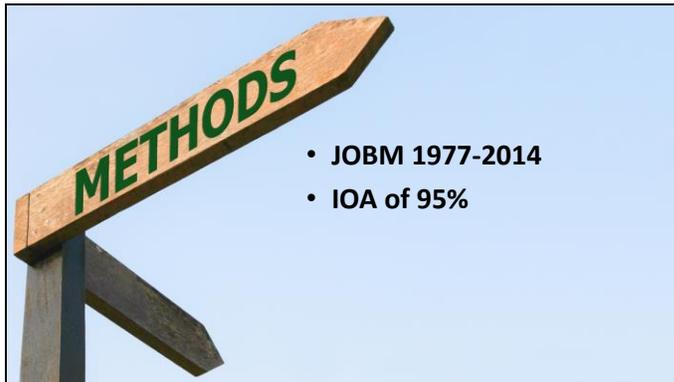
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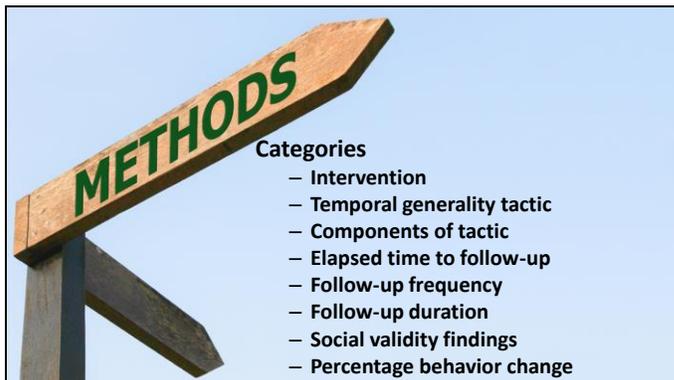
- Each of these twelve tactics have not been empirically proven to increase temporal generality thus requiring a comprehensive review of the OBM literature.
- The earliest study to attempt this was Redmon and Lockwood in 1986
- Boyce and Geller in 2001
- Sigurdsson and Austin in 2006

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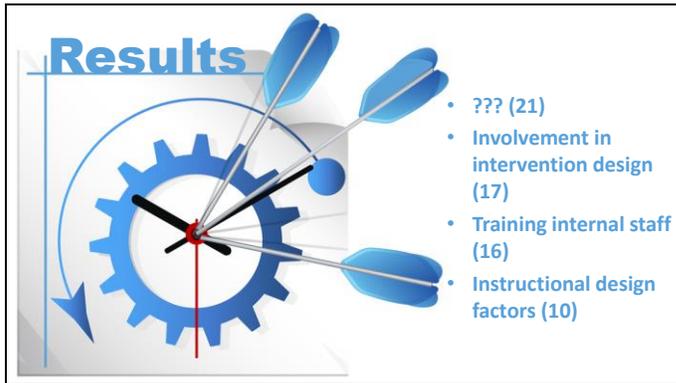
- All studies published in JOBM between 1977 and 2014 were selected for initial review.

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- All intervention components were classified as they were described by the authors.
- Articles were scored for including any of the 12 temporal generality tactics as well as for specific components of those tactics.

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- Most common tactics were intervene and hope (21), involvement in intervention design (17), and training internal staff (16). Instructional design factors (10), sequential modification (6), social validity promotion (5), indiscriminable contingencies (3), mediate generalization (3), BSA (2), formal data collection (2), formal consequence system (1).

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- 33 studies included feedback, training was used in 19, incentives systems in 13, and goal setting in 12.

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- Average duration of data collection was 4 weeks for 48 of the 63 studies.
- The remaining studies were excluded from the average because they did not report the follow-up period in days, weeks, months, or years.
- Those that were excluded included 3 studies with follow-up lasting one year, 2.5 years, and 9 years.

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- The average time to follow-up was 5 weeks, again 16 studies did not report the time between intervention and follow-up as days, weeks, months, or years and were excluded from the average. 10 reported immediate follow-up, 2 did not specify, 3 were over a year, and one was 30 weeks later.

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- 21 studies reported weekly follow-up data, 12 reported daily collection, and 6 reported only one follow-up measure. The remaining studies reported annual, twice per week, nine per day, 4-7 per day, every 4-6 weeks, or two weeks as their frequency of follow-up data collection

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- 20 studies included some form of social validity, 15 of these used a participant or staff survey, 4 used a customer or client survey, and 1 used a supervisor survey. All reported satisfaction with the intervention.

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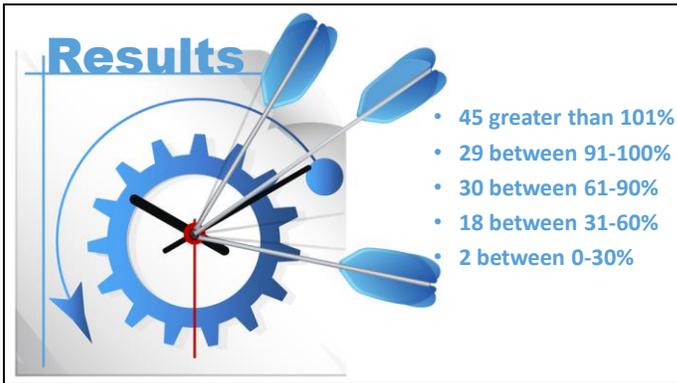
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- Among the 63 studies there were 127 performance measure reported for participants, settings, groups, or dependent variables.
- Of these 127 measures 45 had a performance change of 101%, 29 between 91-100%, and 30 between 61-90%. 18 had measures between 31-60%, and 2 had 0-30%.

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- With a large portion of the 311 articles initially reviewed being laboratory studies the fact that 53 studies collected follow-up data is encouraging.
- Discussion of percentage of performance change

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- Majority of studies did not use temporal generality tactics that would be expected to improve performance maintenance.
- Follow-up is good but programming interventions for temporal generality is necessary.

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- Several tactics have been rarely used as a part of an intervention.

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- Without further research an empirical understanding of these temporal generality tactics will be lacking.
- If OBM hopes to maintain and grow its reputation for generating lasting behavior change then it must be a priority to study these tactics and determine how they can best be combined with our interventions.

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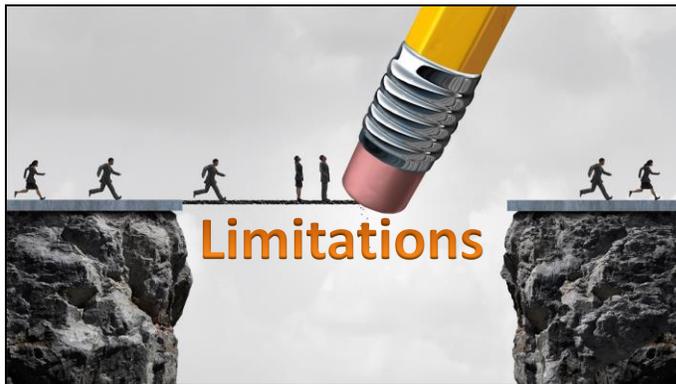
- Only 20 studies reported some form of social validity

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- While the average duration of follow-up was 4 weeks, the most frequently reported durations were one and two weeks. There are many obstacles to the collection of follow-up data such as the timely demands of graduation, tenure, supervision, or new clients. The high pressure for academics to publish frequently instead of collecting data over the long term for single publications is not likely to go away anytime soon.

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- There may be additional tactics for promoting temporal generality that have not been highlighted in this review, such as the difficulty of the intervention, leader support, or behavior “champions”.
- There may be other mechanisms used to sustain change that are not available through JOBM or other publicly accessible resources. It is possible some consulting firms have developed other strategies that promote generalization but they have not been published in public places.

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