FACTORS FAVORABLE TO PUBLIC PARTICIPATION SUCCESS

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ABSTRACT

Public participation (PP) failures appear to be much more common than PP successes, at least when large agencies attempt PP in conjunction with their programs. The PP literature is replete with opinions, exhortation, advice, and some data about approaches that are supposed to produce successful public involvement outcomes. But there is little data verifying which of the multitude of factors that are supposed to result in favorable outcomes are causally linked with PP successes. This paper attempts to move beyond the scattered, hortatory and often context-less "lessons learned" in the literature to organize and evaluate findings as to their "essentiality" for PP success in the bureaucratic agency context. We evaluate information from literature reviews and the authors' field data and present a number of hypothesized relationships between key factors and PP success which we hope will be tested in future evaluations.

The categories of factors linked to successful PP program outcomes include PP process, organizational context, sociopolitical context, strategic considerations and unique (special circumstances) factors. We re-order the long list of factors according to how essential, important, and unique they are and discuss their significance and interrelationships.

We argue, as have others, that bureaucratic structure and operational modes are basically in conflict with the features of successful PP programs (openness, two-way education and communication with non-expert outsiders). If our claim is valid, then it is not surprising that the factors essential for PP success in bureaucracies involve extraordinary management efforts by agencies to bypass, compensate for, or overcome structural constraints.

We conclude by speculating about the long-term viability of PP practices in the agency setting as well as the consequences for agencies that attempt the problematic task of introducing PP into their complex, mission-oriented organizations.

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I. INTRODUCTION AND BACKGROUND

The question of why there appear to be so many PP failures in agency efforts to involve the public continues to intrigue those of us who work with agencies in this area. How to increase the probability of success in public involvement (PI) efforts continues to engage both practitioners and academics. Many researchers have noted agency problems in:

- listening to or acknowledging public concerns;
- responding to citizens directly;
- overcoming citizen distrust; and
- sharing power with citizens in PP efforts.

We believe that these problems are due in part to the normal reluctance of any mission-oriented organization to depart from its intended course when other goals and/or a different mode of proceeding are suggested. These problems also represent a mismatch between bureaucratic structure and objectives and the participation by members of the public in agency affairs.

The conventional public administration literature suggests that there is an inherent conflict between the demands of PP and the fundamental precepts of modern bureaucracy. Specifically, administrative action is impersonal and institutional. It is designed to be "objective, impersonal, occasioned by universalistic criteria" (Thompson 1965) rather than to be responsive to specific concerns or particular public interests. Consequently, it is reasonable to hypothesize that the impersonal, institutionalized decision-making that characterizes public bureaucracies may present a difficult if not insurmountable challenge to those advocating greater openness and responsiveness. Secrecy and non-responsive of public bureaucracy have been defined by some (e.g., Admiral Watkins, former Secretary of Energy) as primarily a problem of culture. This diagnosis may suggest an overly optimistic prognosis. The nature of modern public bureaucracies may structurally preclude reform in a manner consistent with the values and goals of the idealized PP model.

If bureaucracies are unlikely or inappropriate settings for PP, then what can be done to overcome barriers to the PP that is increasingly mandated by government policy and agency decree? How shall well-meaning agency managers overcome normal bureaucratic reluctance to share information with outsiders? How should they proceed to implement PP directives? How far can agency managers go toward sharing power with stakeholders in decision making?

These questions and other conflicts that arise when trying to introduce more public participation into bureaucracy are defined as a basic conflict between the values of pluralistic democracy and those of administrative efficiency in Bureaucratic Democracy (Yates 1982).

Given the mandates from Congress and government agencies to include PP in agency decision making, there is need for a more
systematic organization of "lessons learned" in the literature about PP success and failure. At least one previous discussion of "limits to PP" can be re-interpreted as problems resulting when attempting to introduce PP into bureaucratic structure (Peelle 1988).

Much of the "lessons learned" discussion in the literature does not explicitly take into consideration any context or even acknowledge the constraints on bureaucracies which are governed by administrative efficiency goals. Many factors associated with PP success are identified in the varied, multi-disciplinary literature (Peelle & Farhar, 1995). But the next questions of distinguishing among the factors that are essential, essential but limited to specific circumstances, and helpful but not essential are left largely unaddressed.

Moving beyond the "lessons learned" in the PP literature requires reviewing and analyzing factors thought to be associated with PP success. We take that as the principal task for this paper. We hypothesize about which factors are likely to be associated with PP success and then discuss their "essentiality" and "uniqueness." Our approach emphasizes context (organizational, socioeconomic, historical and political), process, and strategic factors, primarily from the agency/managerial perspective. We review the basic incompatibility between the open, multi-stakeholder interaction of current PP efforts and that of the closed, hierarchical system of bureaucracy.

The next two sections give brief discussions of the methodology and definitions that we use. Section four lists and organizes factors thought to be important to PP success while section five evaluates the essentiality of the factors. In our discussion (section six) we argue the basis for our judgments on essential factors, and relate the judgments to various definitions of success. Section seven presents our conclusions.

II. METHODOLOGY

Using an inductive, bottoms-up, empirical approach, we reviewed relevant case studies and general conclusions in the literature about factors leading to PP success. Using a preliminary definition of success that combines both interim process and outcome measures (see section three), we selected specific case study examples of overall PP success. The examples came from studies performed by the authors and other social scientists, including five case studies conducted by the authors for DOE's Environmental Management (EM) program (Schweitzer et al 1996). Each of these cases was analyzed for the presence or absence of the factors identified in the literature and suggested by our previous research as being associated with PP success. Using our detailed knowledge of the interrelationships of various factors in each case study as well as our long-term experience with the field of public participation, we made preliminary judgments as to the
relative importance of each factor for the overall "success" of the PP effort.

In our efforts to devise a more comprehensive framework for evaluating factors leading to PP success, we confronted the inevitable data gaps, inconsistencies and disparate approaches in older case study data. Many factors of current interest were not addressed in earlier studies. Sometimes we can rework the data from our own older studies, and, using our experience and judgment, supply a factor that was implicitly covered. In such cases, subjective judgment was used to fill in the missing data. In most cases, however, no new information was available so the gap remains.

For our current incomplete studies, more information may become available as these cases are fully analyzed. For all these reasons, our conclusions must be considered preliminary estimates in the nature of hypotheses for further testing.

We hope that other examples known to our readers will be reviewed likewise to test, verify, and hopefully extend this data pool and the resulting hypotheses. Our current approach is largely a-theoretical; therefore we particularly welcome further analysis, refinement, and evaluation.

III. DEFINITIONS OF PP and PP SUCCESS

One of us has previously critiqued PP/stakeholder involvement (SI) definitions and argued for replacing the inadequate two-party public involvement approach that fits the old DAD (decide, announce, defend) model of PP with the broader definition of SI (Peelle 1995). Stakeholder involvement is defined as including a broader array (multi-party model) of internal and external stakeholders in an interactive PP process. Since the details of PP vs. SI are not at issue here, however, we use the term PP in this paper to include all cases of PP or SI.

Since success in public participation is very much in the eye of the beholder, the question then becomes "whose success" and how success is to be defined. Generally, successful PP enables a decision to be reached though the decision does not necessarily entail approval of the given project as proposed by the agency or as desired by any other stakeholder. Peelle's earlier definition of PP success (1988) is "any outcome which reduces conflict between stakeholders and agency proponents and results in a legitimate and lasting decision." Using an exclusively outcome-based definition, however, ignores the need to make preliminary, interim assessments of the conduct of PP for projects that may not be completed for years or even decades.

Schweitzer et al (1996) in a companion paper at this meeting present 17 stakeholder-generated definitions of PP success which are grouped into five general categories. These categories include: 1) the decision-making process; 2) effects of PP on
stakeholder understanding and attitudes; 3) effects of PP on environmental management decisions; 4) effects of environmental management decisions on site conditions; and 5) effects of environmental management decisions on meeting various stakeholder objectives. We note that roughly half of the definitions of PP success given in Schweitzer et al (1996) are not restricted to outcomes but include interim stages of the process, as well as changes in understanding and attitude of both external and internal stakeholders.

For this paper, we used a broad combination of the outcome-based and interim-based definitions of success described above to qualitatively determine the success of the PP efforts under study. As a first order validation check, we also required that our judgment on PP success for a given case study agree with the views of a significant majority of stakeholders whom we had interviewed.

IV. FACTORS LEADING TO OR ENABLING SUCCESSFUL PP

A long list of "key factors" in PP success are commonly repeated in the literature. As detailed by Peelle & Farhar (1995), they include: early involvement of the public; inclusiveness in stakeholder involvement; adequate information; two-way communication; sufficient resources (funding as well as logistical support) and time for PP process; PP mechanisms other than public meetings; particular type(s) of PP process; degree of citizen control; incentives and/or compensation; prior citizen education; economic interest or need of the potential host community; interactive PP between agency and stakeholders; and prior community experience with nuclear, chemical, hazardous or military projects.

Additional factors found to be key to successful PP in selected case studies but which are not as widely accepted in the literature include: managers going beyond mandated PP; managers giving PP high priority and continuing attention; project manager and technical staff "taking ownership" of PP; one-on-one PP approach; PP goals agreement among external stakeholders and between internal and external stakeholders; citizen task force confidence in its own understanding; inhouse technical expertise; prior local government/community experience with PP or problem solving; absence of a history of community divisiveness; and minimal agency bureaucracy if voluntary siting is the goal (Wiltshire 1986; Lynn 1987; Aronoff & Gunter 1994; Jordan et al (undated); Peelle 1987, 1988, 1990a, 1990b, 1994, 1995; Richards 1993; Armour 1994).

Few contextual guides are given in the second grouping and even fewer in the first group, though some can be inferred from the accompanying discussion. Frequently the absence of the factor is cited/suggested as the reason for failure of the project as designed. (See, for example, the discussion by Kapserson (1977) or Ellis and Disinger (1981) on absence of early involvement of the public).
We sorted through the laundry list of factors in the literature judged to be important to PP success and grouped them into five categories. **PP process factors** are those that characterize the PP process itself, such as broad representation of stakeholders or dialogue between agency and stakeholders. **Organizational context** includes how the agency organizes its conduct of the PP process within its own constraints. Agencies may use various **strategic considerations** to direct or shape their PP activities. Outside of the agency or the PP process are various **social, economic, historical and political contexts** that may be vital to PP success. Some **unique** factors emerge in uncommon circumstances. Each of the categories and component factors are shown in Table 1.

Grouping the key factors as in Table 1 reveals the large number of contextual factors. Half of all factors are either organizational or social-economic-political-historical context factors. Factors over which project managers have little or no control constitute nearly one-third of the whole (social-economic-historical-political context and unique factors) and may comprise well over 75% if organizational context, timing, strategic considerations and some PP process factors are unfavorable as well.

We can observe from the small number of agency successes with PP that it is very difficult to put together winning combinations of these factors in the normal bureaucratic environment.

Categorizing key factors provides us with some insights into how PP successes and failure can occur, but we need information on their importance or how essential each is in contributing to an overall successful PP program.

V. JUDGING "ESSENTIALITY" OF PP SUCCESS FACTORS

We used our judgment and experience with our own case studies over the past 25 years, as well as numerous others in the literature in developing Table 2. From our detailed knowledge of the interrelationships in each case study of the variables listed in Table 1, we assessed the relative importance of the presence or absence of each one for the ultimate judgment of "success" of the entire venture. For the DOE EM case studies where analysis is still incomplete, we used preliminary judgments about whether the case meets the definition of PP success, about how the variables are related and about how important each variable is to overall success.

Table 2 shows the PP success factors (identified in Table 1) ranked according to our understanding of their essentiality and uniqueness. In the table we give brief letter identification (B, C, E, etc.) to particular cases that illustrate the factor, with a more complete identification at the bottom of the table. See the reference list for complete citations.
While this exercise is ad hoc, often subjective and suffers from the paucity of good data and the limitations of case studies in general, we feel it is important to begin reviewing the data and proposing ways to use them to advance our understanding. In some cases it is not known whether or not a particular factor was present because the researcher did not mention it. Two examples among essential factors shown in Table 2 are 1) agency clear on its PP goals and role of stakeholders, and 2) adequate resources and funding. Here as elsewhere, we used judgment to fill in the gaps. For instance, inadequately funded PP efforts are seldom documented, so we judge that funding and resources were probably adequate if documentation occurred. On the other hand, the "full consultative strategy" is a relatively recent invention so it is not listed in most earlier case study descriptions; we assume it was not present if not mentioned. Some factors fall into the "helpful" category because they have not been employed in enough cases to demonstrate whether they might become "essentials." Time and more data will continue to change and refine our views of what is essential.

VI. DISCUSSION

Factors that are Essential in most cases

The *sine qua non* for agency success in PP appears to be top agency management support for PP and clarity on their PP goals. This means management giving priority to PP throughout the life of the project. It also appears to be essential that the project manager and technical staff "take ownership" of the PP process rather than delegating it to the community affairs or public relations function. This happens when agency people believe that project success is inseparable from PP success. Achieving these mutually linked goals often requires going well beyond the PP requirements mandated by law or agency directives. For example, the limited, belated, and pro forma requirements for PP such as public meetings and information bulletins rarely seem to generate the stakeholder interest and involvement that result in a PP success.

To take charge in a credible way, agency managers must also have a clear and well-articulated view of their PP objectives and the role they expect of external stakeholders. Managers need to be specific about their interest in and use of stakeholder inputs, and to explain how they expect such input to affect their decision making. Much of the implementation difficulty reported in the literature and known to PP practitioners can be attributed to agency inability or unwillingness to specify the goals and limits to the PP they claim to desire. Creating stakeholder expectations about how their participation would affect decision making and then not following through tends to lead to increased distrust.

Closely coupled with project managers taking charge of PP is the requirement for iterative, intensive, interactive involvement between internal and external stakeholders. The way in which the agency responds to stakeholder questions and requests for
information is often cited as a key to success by stakeholders we have interviewed. In such a continuing, interactive process, mutual education can occur and personal relationships can be established between public members and agency staff.

Much of the complexity of PP processes today can be directly attributed to the loss of trust by general and activist publics in the competence and fiduciary responsibility of agencies like DOE. Elaborate PP arrangements and analytical efforts such as this one are undertaken in response to this loss of trust.

An iterative, responsive PP process is not guaranteed to produce trust among the participants, but such involvement is one of the few ways known to develop trust or at least mutual respect between proponents and other stakeholders. It is widely recognized that citizen distrust of DOE is a major source of that agency's PP difficulties (see SEAB Trust and Confidence report 1993). Not as widely accepted is the importance of reciprocal trust building. It is probably equally vital for agency personnel to engage in these trust-building exercises so that they have the opportunity to develop trust of external stakeholders.

Most of the essential factors in Table 2 come from the organizational context category in Table 1. As we see it, these factors have become essential to PP success in the bureaucratic setting because extraordinary efforts are required to overcome the inertia and disincentives toward interacting with and accepting ideas from outside, non-expert sources. Even when championed by the head of an agency, as happened in the Bonneville Power Authority in the 1980s, built-in structural constraints and staff resistance to serious, interactive stakeholder involvement could only be overcome by high priority, long-term efforts to change the existing, hierarchical modes of operating in a closed system (Johnson 1993, 1994).

The three PP process factors that appear on the list of essentials overlap in major ways. By definition a "full consultative PP strategy" is "interactive, iterative PP" and includes "two-way communication and education." But as seen in Table 2, the cases we judge to include these elements do not overlap very much. That reflects our preliminary judgment about degrees or extent of two-way communication as well as noting that interactive, iterative PP may gradually evolve rather than being part of a full-blown initial PP strategy. In one case, a full consultative PP process developed out of strong citizen leadership interacting with a reluctant agency (Peelle, 1987). With further analysis, these factors may become better defined.

Some factors that are essential for PP success apply in specific situations but not in general. For instance, in the cases involving voluntary siting of noxious wastes, PP successes have occurred only in Canadian provinces where a small, minimally bureaucratic organization was the proponent (Richards 1994, Peelle 1994, Armour 1990). When local distrust cannot be fully overcome
by PP process interactions, limited local control on shutdown policy was essential in producing conditional acceptance of a facility (Peelle 1987). Likewise, negotiations can be essential in some PP processes but are not an issue in others. Citizen or task force confidence in its own understanding can be critical in some instances as in the Tennessee MRS case (Peelle 1987), but not every PP effort involves a task force. This factor may well be critical in many cases but it has not been identified as such by most researchers.

We note that the ongoing movement toward the more inclusive stakeholder involvement process (Peelle 1995) is strongly reflected in the "essential factors" listed above.

What we do not yet know much about is the independence or interdependence of the factors we have found to be essential. Note the discussion above of the three overlapping PP process factors. Must all such factors be present simultaneously, or is sequential appearance enough to enable a PP success? Can a minimum set or minimum number of essential factors be demonstrated in a PP process? Two early case studies (MRS Task Force and Hanford Defense Waste Citizens Forum) demonstrated that a PP success could evolve from a rocky start when more of the essentials were added by the agency in an interactive learning process involving agency personnel and external stakeholders (Peelle 1987, 1990). More studies are needed to define interrelationships among the factors and qualify their utility in variable instances.

B. Other factors helpful to PP success

Our criterion for placing factors in the "helpful but not always required" category is knowledge of at least one successful case in which the factor in question is absent. Some factors once thought to be essential (cited as "necessary but not sufficient" in earlier works) are therefore listed instead in the "helpful" category here. For example, neither early involvement nor broad stakeholder representation are always essential, since some cases we judge as successful did not contain either factor. In fact, broad stakeholder representation is the only factor for which we could not identify any case in which it was fully present. Our judgment here is subjective and conservative; most cases turn up some complaint that some stakeholder interest was not represented. The factor of incentives or compensation has, with time and more data, become more controversial, and is associated with poor performance in the view of some analysts (Bord 1988).

As our roster of studies grows, we can expect the list of factors that apply only to specific circumstances to grow also. One example of this is the major role played by retired scientists whose active participation was influential in changing DOE's proposed solution for cleaning up the contaminated East Fork Poplar Creek in Oak Ridge. Likewise, stakeholder consensus has
been shown to be a valuable factor in the success of some but not all cases.

VII. CONCLUSIONS

Many of the essential factors for PP success in agency settings emerge from personal commitments of agency managers within either a mandated PP or permissive (toward PP) agency environment. In these cases, managers and project leaders perform additional non-mandated PP to overcome bureaucratic inertia and constraints against meaningful involvement with outside non-expert stakeholders. Agency managers and staff can only proceed in this manner when their managers and bureau chiefs encourage or permit these activities that contravene hierarchical imperatives and the usual proscriptions against non-hierarchical inputs and activities.

These managers deliberately choose to invest in building social capital so that they can proceed with their projects. They invest this extra effort in public involvement interactions as a means of developing public acceptance for agency activities in general and their projects in particular. Frequently they see achievement of their project goals as being closely linked to PP.

In addition, the extra commitment and zeal that some agency project managers put into their PP efforts has the effect of empowering stakeholders who may respond positively to being informed and consulted about their concerns and views.

The long-term consequences for agency personnel who seriously pursue PP efforts are not clear in the event of future possible sudden reversions to more typical bureaucratic operations where extended interaction with outsiders is often proscribed. Doing good PP (interactive two-way communications with outsiders) appears to require substantial, continuing efforts by agency leadership in providing continuing direction and support to overcome the structural and value barriers present in bureaucracies. The Bonneville Power example (Johnson 1993, 1994) is instructive, as is the rapid decay of PP practices with the retirement of key leaders. Institutionalizing good PP practices within the bureaucratic structure will be a worthy challenge for agency managers and PP practitioners.

We urge further careful case study documentation of agency PP efforts in order to broaden the reach and verify the tentative findings and hypothesized relationships presented here. Case study work is undeniably slow and yields its fruits only after careful analysis. We expect to expand upon the analysis of essentials and near-essentials in this paper as we complete the case study review and analysis for our current EM project. The hypotheses developed here may be useful for future evaluation of PP projects in other agency settings as well. It is important to all of us that our knowledge of PP essentials and their interrelationships be extended.
REFERENCES


Ellis, Richard and J Disinger 1981, "Project Outcomes Correlate with Public Participation Variables," J. Water Pollution Control Federation, 1564-1567.


Jordan, Jerry, C. Bahk, P. Hutzelman, Molly Mayer, C. Theuring and S. Harrison, (no date), "Fernald Envoy Assessment," University of Cincinnati, Cincinnati, OH


Peelle, Elizabeth 1990a, "Two Citizen Task Forces and the Challenge of the Evolving Nuclear Waste Siting Process," vol. 2,


Thompson, Victor 1965, Bureaucracy and Democracy: Essays in Honor of Paul Appleby. 205-206, Syracuse University Press, Syracuse, NY


Table 1. Categories of Factors Important to PP Success

**PP Process Factors**
- openness of agency
- early involvement of stakeholders
- dialogue between agency and stakeholders
- broad representation of stakeholders
- shared goals among key participants
- stakeholder access to technical expertise
- deployment of particular PP mechanisms (public meetings, workshops, working groups, etc.)
- development of trust between agency and participants
- full consultation with interactive feedback
- agency accepts /responds to citizen input

**Organizational Context**
- adequate resources and funding
- small or minimal bureaucracy (if voluntary siting)
- agency clear on its PP goals and role of stakeholders
- top management commitment to the PP process
- being driven by PP in addition to technical factors
- enough freedom/flexibility to take appropriate PP action
- project managers and technical staff taking ownership of PP
- having time to do one-on-one PP, relationship building
- variation over time in Congressional, agency priorities for PP

**Agency Strategic Considerations**
- giving priority to trust building actions (forming social capital)
- going beyond legal minimums for PP
- having a strategic PP vision, (e.g., one-on-one PP approach focusing on a few key issues)

**Social-economic-historical-political Context**
- economic need of community stakeholders, employees
- prior local government/community experience with nuclear/hazwaste, hazardous, or military operations
- prior local government/community experience with problem solving
- prior local government/community experience with PP
- absence of local history of divisiveness, conflict

**Unique Factors (important in specific circumstances)**
- stakeholder consensus
- strong, experienced stakeholder leadership
- citizen (task force (TF)) confidence in own understanding
- local control as substitute for public trust
- negotiation
- retired professionals participate in cleanup decisions
Table 2. Relative Importance of PP Success Factors

**Essential in most cases**
- agency clear on its PP goals, stakeholder role (C, F)
- top management commitment to PP process (B, C, E, F, H, M)
- manager/leader goes beyond legal minimum PP (B, E, F, H, M)
- project manager and technical staff take ownership of PP (F, H)
- agency responsiveness to stakeholders (B, F, H, M)
- full consultative PP strategy (F, H, M)
- two-way communication and education (C, E, F, H, M)
- interactive, iterative PP (B, F, M)
- adequate resources and funding (F, H, M)
- provisional trust develops between agency and public stakeholders (CAN, E, F, H, M,NC)
- giving priority to trust building actions (F, H, M,NC)
- openness of agency (C, F, H)

**Essential in some cases**
- small or minimal bureaucracy (if voluntary siting) (CAN)
- local control (if distrust too high to develop consent otherwise) (M)
- negotiation (CAN, M)
- citizen (TF) confidence in own understanding (CAN, E, H, M,NC)

**Helpful but not always required**
- early involvement of stakeholders (CAN)
- broad representation of stakeholders (E, H, M)
- stakeholder access to (inhouse) expertise (E, H, M)
- incentives and compensation $ (F, M)
- prior citizen education (NC, M)
- prior local government/community PP experience (E, G, M)
- one-on-one PP approach (F)
- shared goals among key participants (CAN, F, H)
- economic need of community stakeholders, employees (M, NC)

**Specific/unique circumstances**
- retired professionals participate in cleanup decisions (E)
- site history and characteristics factored in (E, F, M)
- stakeholder consensus (H, M, NC)
- strong, experienced citizen leadership (E, H, M)

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B = Bonneville Power Authority: Johnson 1993, 1994
H = Hanford Defense Waste Citizens Forum: Peelle 1990b
E = East Fork Poplar Creek, Oak Ridge Reservation, EM case study in progress
C = CAMU, Sandia National Laboratory, EM case study in progress
F = Fernald plant, Ohio, EM case study in progress
G = Gratiot Co., Michigan; Aronoff & Gunter 1994
M = MRS task force, Oak Ridge-Roane Co., Tennessee; Peelle 1987
NC = Two North Carolina hazardous waste cases; Lynn 1987
CAN = Canadian hazwaste voluntary siting: Peelle 1994; Armour 1990; Richards 1994

$ Some researchers believe that incentives and compensation are contraindicated as a general rule. See Bord 1988 for example.