

## Customer Satisfaction and Training Program Quality

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*Many authors in the field of quality management stress the importance of customer satisfaction. Meeting customer requirements is conceived of as an important indicator of quality of a product or a service (Juran, 1992). Scholars in the field of HRD however, stress the importance of achieving performance improvement (Swanson, 1994). They contend that HRD interventions should have impact on the organisation, or effects on business results. The indicators of training effects that are meant here, are defined on a higher system level. This means that reactions of recipients of training services are perceived as being less important than improvement of expertise, transfer of expertise to the job, and attaining business process targets.*

Commercial training organisations need to provide their services in such a way that their clients will be satisfied (Zeithaml, Parasuraman and Berry, 1990). Satisfied clients are in fact an essential condition for the continuity of these organisations (Hayes, 1992; Juran, 1992). If many clients of an organisation would be dissatisfied, that organisation would be out of business very soon. The clients would simply buy their services from a competitor (Thomassen, In 't Veld and Winthorst, 1994). Measuring customer satisfaction therefore is very important for training organisations, especially when these organisations are big, and the management of the training organisations does not know all projects and clients. Measuring customer satisfaction is part of several total quality management approaches. For instance, within the method called 'Towards continuous quality improvement' (CEDEO, 1993), 'satisfied clients' is one of the nine components for quality evaluation. The weight of this component in the whole model is twenty per cent. During the last decades, measurement of satisfaction with training events is critiqued. Various authors have developed strategies to evaluate the effectiveness of training programs (Brinkerhoff, 1987; Bramley, 1991; Basarab & Root, 1992). The critiques are justified, as in training projects impact on the higher levels Kirkpatrick distinguished already in the fifties (Kirkpatrick, 1994), or performance improvement (Rummeler and Brache, 1990), is the ultimate goal. Satisfaction of the recipients of training is not enough. Learning results, changes in the work behavior, and organisational improvement need to be achieved. And this needs to lead to improvement of the performance of individuals, teams, and organisations (Swanson, 1994). In this study, customer satisfaction of training programs is defined as the degree to which clients of training organisations are satisfied with the performance of the training organisations in three stages of the training process: the before-training, the during-training, and the after-training stage. The training programs that are meant here are offered by training vendors in the field of management, communication, and employee participation. They are mainly group-oriented instructor-led customised training programs. But there are also individual training programs included in the study. The individual training programs are aimed at language training and individual coaching mainly.

The Department of Curriculum of the University of Twente has conducted a project in which the customer satisfaction about training projects has been measured. This project is conducted for the Dutch Association of Training Organisations, which comprised about 45 independent commercial training organisations. These organisations vary in size and number of customers. Small organisations employ only some trainers/consultants and have a limited number of clients. Big organisations employ about 150-200 trainers/consultants, and have hundreds of clients for the training projects mentioned. The project was aimed at measuring the customer satisfaction with training projects, in which the customer

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requirements were the focus of the whole training process. The total number of these projects exceeds 6,000 per annum, and about 100,000 trainees are enrolled in these projects. The purpose of this project was to improve the system of customer satisfaction research that was in operation, and to integrate impact measurement in the system under the constraints of a limited budget and full-scale application of the system.

The results of the evaluations, which took place during 1993 and 1994, were reported to the training organisations. These organisations use the results for internal quality management. Some of the organisations use the data for bench-marking purposes (Camp, 1989). The association uses the system as a whole for quality assurance.

### Research Question

As has been mentioned above, there was only a limited budget for conducting the evaluations, and the intention was to measure the customer satisfaction on a large scale, which means that the research instrument and procedure needed to be as efficient as possible. On the other hand we thought it was necessary to include a component of impact measurement in the instrument. This was a real challenge, as dedicated impact measurement necessitates criterion-referenced measurement, which under the given constraints was impossible to include in the evaluation system. Therefore a straightforward set of questions was included in the research instrument on the objectives of the project, the responsibilities of reaching these objectives, the level to which the objectives were reached, and the attribution of results to the training organisation (the results question will be elaborated in the next section). One can ask whether this additional component has added value for the evaluation system, or whether mere customer satisfaction research would yield enough information on training project quality. Based on theoretical insights we think that impact is an important characteristic of training project quality, and that satisfaction with the training process is not enough to warrant this impact. Therefore, the research question in this study is: is satisfaction about training projects an indicator for the impact of the training projects? If this would be the case, standardised impact measurement could be left out of the evaluation system, and customer satisfaction data about the training project would be sufficient. This would make the evaluation system less complicated, more easy to implement, and therefore cheaper. We, however, expect that customer satisfaction is an insufficient indicator of training impact, and that impact research needs to be integrated in customer satisfaction evaluation.

### Methodology

In this section we will describe the methodology used in this study. First of all we will describe the persons that participated in the study, next the training programs that are evaluated, than the procedures, and finally the reliability of the data.

**Participants** The participants in the study are customers of training organisations. They contract the training organisations, specify the training needs, and co-ordinate the training project within the client organisation. In some instances customers are also participating in training projects. In all cases they are the persons who are best informed about the whole training project, and who are in the best position to answer questions about the training projects. About a quarter of the customers hold line positions in the client organisations (as director or line manager), and about three quarters of them are staff employees (in human resource management and development departments). The participants were asked to cooperate in the study on a voluntary basis. The training organisations expressed the importance of the study and stimulated their clients to participate.

**Training Programs** About two thirds of the training programs were in the field of management and communication, 15% in the field of commerce, 9% in languages, and 7%

in employee participation; 5% of them were in marketing, engineering, and human resource development together, and 17% of the projects could not be categorised in one of these groups. The total amount of percentages exceeds 100%, as the customers could categorise a project in more than one group. Most of the projects have been carried out once (51%), 21% were carried out twice, 7% trice, and 13% more often; of 7% of the projects is was not known how many times they were carried out. The average number of days the projects lasted was 6, and the average number of participants per project was 23.

**Research Instrument** A written questionnaire has been developed. For the part on satisfaction with various factors of the training projects, the questionnaire includes a selection of indicators that are common place in the literature on human resource development (Andrews and Goodson, 1980; Romiszowski, 1981; Goldstein, 1986; Camp, Blanchard and Huszczo, 1986; Brinkerhoff, 1987; Swanson, 1994; Rothwell and Kazanas, 1994).

The indicators of customer satisfaction are divided in the three stages of training projects that have been mentioned before. The indicators, and their meaning in the training process, are the following:

*Stage I: Before Training*

**Target group.** The right persons need to be selected for participating in the training program at the right time, and this target group needs to be prepared for the training program. The participants are the recipients of the training program.

**Needs.** The training program has to be focused on the learning needs of the target group. These needs can be specified in terms of types of knowledge, skills, and attitudes (KSA's). The KSA's need to be linked to the performance targets and the performance requirements of the target group.

**Design.** The design of the program needs to be aligned to the learning needs on the one hand and the contextual constraints on the other hand (Romiszowski, 1981). The design of the program comprises statements and specifications about the objectives of the training program (why are we organising this program? what do we expect of it? what are the results we want from this program?), the content of the program (what is the program about? what problems, topics, issues will be touched upon?), the organisation of the program (what needs to be done? when? where? how? with what? with whom?), and the evaluation of the program (how do we measure the results? how good have the results to be?). These four components of the program design need to be coherent.

*Stage II: Training Implementation*

**Materials.** All materials such as course descriptions, instructional materials, instructional media, and trainer's guides, should be linked to the design of the program. Furthermore, they should be appropriate for the target group, and meet the needs of the learners.

**Trainers.** The trainers or instructors should focus on the needs of the target group, and they should create learning processes that are coherent with the program design. They need expertise that is required to teach the given course.

**Program time.** This is one of the most important organisational characteristics of training programs, as it determines the amount of time the target group needs to devote to the program. This learning time is one of the major cost factors of training programs.

*Stage III: After Training*

**Evaluation.** The evaluation is an integrated part of any systematic training effort. Without a sound evaluation of the results, it is very difficult to get valid feedback to the stakeholders. As such it is an essential part of any in-company training program, though profound evaluation of effects of training programs is more often the exception than the rule.

**Coaching of usage.** When employees have acquired new skills, knowledge, and/or attitudes, it is essential that they use these on the work-site. All too often effective usage is disrupted by destructive learning processes that occur during re-entry at the work-site. To prevent this from happening, coaching is helpful to facilitate transfer of learning (Broad & Newstrom, 1992) to short and medium term job performance.

*Final report/meeting.* The training organisation wants to inform the client organisation about the results of the training program. They also want to share the more and less positive experiences the persons involved had with this program. It is a reflection about the strong and weak points of the program, and in a final meeting these reflections can be exchanged. Furthermore, the parties involved can make arrangements for follow-up activities.

A five-point scale is used to measure the extent to which the clients of training programs were satisfied with these indicators.

For the part on the results of the training projects, one question was included in the questionnaire. This question is based on the work of Kirkpatrick (1994), and reflects results measurement on level 2, 3 and 4. The question is: 'To what degree are the objectives of the training project achieved?' The respondent then has to answer three items:

- a. attainment of learning results;
- b. improvement of job performance in work situations;
- c. support of organisational change.

The answering categories are: not applicable, not yet known, not at all, about a quarter, about a half, about three quarters, and completely.

*Procedures* For the purpose of this study a sample is drawn from a population of 10,144 projects. The sample size was 2,174, and the response group size was 1,403, which is 65% of the sample.

The customer of the selected projects received a printed questionnaire with the request to complete the questionnaire to prepare a telephone interview by the data collection staff members. A panel of research assistants called the customers. A standardised text was provided to explain the question and answering categories in the questionnaire, if that was needed. In some cases the interview was conducted, but in most cases the customers returned the completed questionnaire by post.

Correlation analysis is performed to show the relationships between satisfaction on the training projects, and the impact of the projects. Subsequently a selection is made of the projects. Based on the question as to the importance of the project objectives (concerning learning results, job performance, and organisational change) and the question as to whether agreements were made for the training project factors, three groups were composed. These groups of training programs are predominantly aimed at achieving learning results, changes in job performance, and organisational change respectively. For these projects the relationships between satisfaction and impact are tested separately, with a correlation analysis. A preliminary Lisrel analysis is performed to evaluate the latent structure of the variables that are distinguished in the study.

*Reliability.* Earlier research was conducted to study the reliability of the data (Mulder, Van Ginkel and Nijhof, 1994). In that study three reliability tests were performed: a non-response analysis, a test-retest analysis and an inter-rater analysis. The non-response analysis showed a maximum difference between respondents and non-respondents of .33 on a 10-point scale of total satisfaction with the project. The maximum difference scores on this scale for test and retest scores is .27, and for first and second raters .57. We concluded that the reliability of the data was satisfying.

## Results

Pearson correlation coefficients are computed for the relationships between the results of the training projects (learning results, change in work behavior, and support of organisational change), and the satisfaction about the training project factors. The results show that all correlation coefficients are statistically significant. The mean values of the correlation coefficients for 'learning results', 'work behavior', and 'organisational change', are .3267, .2244, and .1970 respectively. All are less than .40, and Phillips (1991) contends that such values are low.

The results of the preceding analysis are independent of objectives at which the projects are aimed, and agreements that have been made about the training project factors between the training and the client organisation.

Questions on these issues are included in the questionnaire, however, and data on both variables is available. The cases are grouped according to their focus: achieving learning results, changed work behavior or support for organisational change.

**Table 1. Correlation Coefficients between Results of Training Projects by Training Program Factors by Groups of Training Projects that are aimed at achieving Learning Results (Group 1), Change in Work Behavior (Group 2), and Support of Organisational Change (Group 3)**

	<i>Group 1 Learning results</i>	<i>Group 2 Work Behavior</i>	<i>Group 3 Organisational Change</i>
Target group	.2297 ( 158) P=.004	.1055 ( 181) P=.158	.2851 ( 105) P=.003
Needs analysis	.3526 ( 182) P=.000	.3202 ( 196) P=.000	.3109 ( 112) P=.001
Design	.3356 ( 174) P=.000	.2609 ( 216) P=.000	.2435 ( 113) P=.009
Materials	.1623 ( 168) P=.036	.2227 ( 190) P=.002	.0948 ( 103) P=.341
Trainers	.3383 ( 177) P=.000	.3348 ( 217) P=.000	.2351 ( 113) P=0.12
Program time	.3222 ( 202) P=.000	.2468 ( 229) P=.000	.1414 ( 118) P=.127
Evaluation	.3207 ( 149) P=.000	.4116 ( 188) P=.000	.1481 ( 102) P=.137
Coaching of usage	.2164 ( 69) P=.074	.3204 ( 84) P=.003	.2064 ( 61) P=.110
Final report	.2882 ( 134) P=.001	.3419 ( 158) P=.000	.2339 ( 82) P=.034
Mean <sub>R</sub>	.2851	.2850	.2110

As to the selection of projects with respect to agreements made between the partner organisations, those cases were selected for which the respondents stated that agreements were made about the factors of the training projects (the nine factors in the before-during-after the training stages).



As to the grouping of projects with respect to their focus on learning results (LR), changed work behaviour (WB), and support of organisational change (OC), the following grouping rules were applied:

- group LR: ((goal LR GE 4) and ((missing (goal WB) or (goal WB LE 3)) and (missing (goal OC) or (goal OC LE 3)))).
- group WB: (goal LR GE 4) and (goal WB BE 4) and (missing (goal OC) or goal OC LE 3)))).
- group OC: (goal LR GE 4) and (goal WB GE 4) and (goal OC GE 4)

In Table 1, the correlation coefficients (Pearson) between the results of the training projects (learning results, change in work behavior, and support of organisational change) and the satisfaction about the training project factors are depicted. The column correlation coefficients are values for the three categories of project results, the row correlation coefficients are values for the satisfaction on training project factors. The first three factors (target group, needs analysis, design) pertain to the before-the-training stage, the second three (materials, trainers, program time) to the during-the-training stage, and the third three (evaluation, coaching of usage, final report) to the after-the-training stage. The bottom row depicts the mean correlation coefficients for the columns. The computation of the coefficients is done independently for each pair of variables. Listwise computation would lead to a significant decrease of cases. For each training project factor the value of the correlation coefficient is printed on the first line, the number of cases (training projects) on the second, and the probability level on the third.

Many relationships are statistically significant. And again, the values of the correlation coefficients are weak. The average correlation between the groups and the training project factors are more homogeneous than for all projects together. But the trend is the same: the average correlation between the learning results and the training project factors on the one hand, is higher than the average correlation between the 'organisational results' and the training project factors on the other hand. The average correlation between the 'work behavior' and the training project factors lies in between both others.

The conclusion therefore is that satisfaction with training project factors is something different than project results. And the satisfaction measures are no good indicator for that achievement of project results. This conclusion underlines the necessity of maintaining the measurement of results as a component of the whole evaluation system. Measurement of project results, namely, does provide different information than measurement of project satisfaction. So the results call for a combination of both the marketing aimed measurement of customers satisfaction on the one hand, and the performance aimed measurement of results on the other hand. This conclusion is strongest for the results about 'organisational change', and relatively less for 'work behaviour', and least for 'learning results', but these are only gradual differences. The main conclusion remains that based on the magnitude of the correlation coefficients, project satisfaction is a limited indicator for project results.

In this paper we have reported on data that have proven to be reliable. The research project will continue during the year 1996, and 1997. Along the 'regular' collection of data with the standardised research procedure and instrument, we want to conduct a few in-depth studies to test the validity of the data.

First of all, for a selected group of projects, training organisations will be asked to provide evaluation data. These data will be contrasted with the data provided by the client organisations.

Secondly, the sources of information on which respondents base their answers on the questions in the inventory will be evaluated. These sources will vary as to the rigor with which training projects are evaluated. We expect that some respondents have based their answers on subjective experiences with the projects, whereas others will have based them on internal performance evaluation data.

Thirdly, the participation of the respondents in the total training project will be examined. Again, this may show considerable variation. Some respondents may be the

contractor and final responsible officer for the project. Others may be staff personnel, and still others may even participate in the training itself. These different participation levels may lead to different perspectives on the project, and at least a different level of depth of information about the project's characteristics and success.

Fourthly, the standards of satisfaction and results orientation of the respondents will be evaluated. These standards usually vary (De Ruyter, 1994). Certain training organisations state that because of their quality training programs, but also because of the educational and functional level of their clientele, respondents are more critical than others. The bias this is causing will be examined.

Fifthly, in the customer satisfaction research system that is employed in this study, measurement of the impact of the training programmes is standardised. It would be better to use a criterion oriented (Shrock and Coscarelli, 1998) performance assessment system. This, however, requires customised questionnaires, including performance objectives that pertain to the content of the projects. It would also be preferable to include hard data in the evaluation system were possible. This approach is being tested in an effectiveness evaluation study currently, but it appears that this approach is much more time consuming, and therefore more costly. In the validity test some projects will be evaluated this way, however, specific performance objectives will be specified and assessed, probably with behaviorally anchored rating scales (Mills, Pace and Peterson, 1988). Multi-rater measurement methods will be used, jury's alphas will be computed to check the reliability of the data, and the results of these measurements will be combined in a constructed indicator for effectiveness. The value of this indicator will be compared with the results scores resulting from the standardised evaluation system. This comparison will enable a rigorous conclusion as to the validity of the results data in this study.

### Finally

In this study the different relationships are tested separately. It would be interesting to combine the analyses in one comprehensive model. Currently we are testing a causation model with a Lisrel analysis. Latent variables we distinguish are Project Definition, Project Implementation and Training Effectiveness. A first analysis resulted in a perfect fit ( $\chi^2 = 0.57$ ;  $df = 41$ ;  $p = 1.00$ ). But corresponding with the previous results, the covariance matrix of latent variables shows an  $R^2$  of 0.35 only for project implementation and training effectiveness. The  $R^2$  for project definition and training effectiveness is only 0.03. The  $R^2$  for project definition and project implementation is 0.14.

Further analysis of the data showed that due to the skewness of the distribution of many variables, the tests that are performed have limited power. We are currently looking for a more sophisticated combination of parts of the dataset, to achieve more sensitive values of the predictor and criterion variables. We expect that this approach will result in a stronger confirmation of the hypothesised relationships.

### References

- Basarab, D.J. & Root, D.K. (1992). *The Training Evaluation Process*. Boston: Kluwer Academic Publishers.
- Bramly, P. (1991). *Evaluating Training Effectiveness. Translating Theory into Practice*. London: McGraw-Hill.
- Brinkerhoff, R.O. (1987). *Achieving Results from Training. How to Evaluate Human Resource Development to Strengthen Programs and Increase Impact*. San Francisco: Jossey-Bass.
- Broad, M.L. & Newstrom, J.W. (1992). *Transfer of Training. Action-Packed Strategies to Ensure High Payoff from Training Investments*. Reading: Addison-Wesley.

- Camp, R.C. (1989). *Benchmarking. The Search for Industry Best Practices that Lead to Superior Performance*. Milwaukee: ASQC Quality Press.
- Camp, R.R., Blanchard, P.N. & Huszycz, G.E. (1986). *Toward a More Organisationally Effective Strategy & Practice*. Englewood Cliffs: Prentice-Hall.
- CEDEO (1993). *Op weg naar een continue kwaliteitsverbetering. Een methode voor kwaliteitsverbetering van opleidingsinstituten in Nederland (Towards continuous quality improvement. A method for quality improvement of training institutes in the Netherlands)*. The Hague: CEDEO.
- Goldstein, I.L. (1986). *Training in Organisations: Needs Assessment, Development, and Evaluation*. Monterey: Brooks.
- Hamblin, A.C. (1974). *Evaluation and Control of Training*. New York: McGraw-Hill.
- Hayes, B.E. (1992). *Measuring Customer Satisfaction. Developments and Use of Questionnaires*. Milwaukee: ASQC Quality Press.
- Juran, J.M. (1992). *Juran on quality by design*. New York: The Free Press.
- Kirkpatrick, D.L. (1994). *Evaluating Training Programs. The Four Levels*. San Francisco: Berrett-Koehler.
- Mills, G.E., Pace, R.W. & Peterson, B.D. (1988). *Analysis in Human Resource Training and Organization Development*. Reading: Addison-Wesley.
- Mulder, M., Ginkel, K. van & Nijhof, W.J. (1994). Customer Satisfaction Research as a Component of Quality Assurance within In-Company Training. *Tijdschrift voor Onderwijswetenschappen*, 24, 2/3, 59-76.
- Phillips, J.J. (1991). *Handbook of Training Evaluation and Measurement Methods (2nd ed.)*. Houston: Gulf Publishing Company.
- Romiszowski, A.J. (1981). *Designing Instructional Systems*. London: Kogan Page.
- Rothwell, W.J. & Kazanas, H.C. (1994). *Human Resource Development. A Strategic Approach*. Amherst: HRD Press.
- Rummler, G.A. & Brache, A.P. (1990). *Improving Performance. How to Manage the White Space on the Organization Chart*. San Francisco: Jossey-Bass.
- Ruyter, K. de (1994). *Het (v)oordeel van de ontevreden klant. (The advantage/judgement of the dissatisfied client.)* Utrecht: Lemma.
- Shrock, S.A. & Coscarelli, W.C.C. (1989). *Criterion-Referenced Test Development. Technical and Legal Guidelines for Corporate Training*. Reading: Addison-Wesley.
- Swanson, R.A. (1994). *Analysis for improving performance*. San Francisco: Berrett-Koehler.
- Thomassen, J-P.R., Veld, E. in 't & Winthorst, H.H. (1994). *Klantvriendelijkheid, de succesfactor voor elke organisatie (Customer satisfaction, the Success Factor for Every Organisation)*. Deventer: Kluwer Bedrijfswetenschappen.
- Zeithaml, V.A., Parasuraman, A. & Berry, L.L. (1990). *Delivering Quality Service. Balancing Customer Perceptions and Expectations*. New York: The Free Press.