Action Learning in Practice: how do participants learn?

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Abstract

Action learning and peer consultation are ways of learning with fellow professionals that are gaining in popularity. In small groups, the professionals submit issues from their work for systematic discussion with their colleagues.

This study examines whether the promise of action learning is indeed realized:

• Do the participating professionals actually learn during these sessions?
• If so, what type of learning do professionals report?
• Does this type of learning affect the way in which professionals work?

The study involved a written questionnaire containing 31 closed questions and answered by 126 participants in action-learning groups.

In response to the question “How do participants learn?” we have noticed a picture emerging of a learning group that learns more during than after the action-learning sessions, mainly by exploring issues in depth and receiving personal feedback. Divergent (reflective) learning seems to reign.
Introduction

Action Learning as an Instrument of Professionalization
It has become commonplace to say that learning and professionalization are of vital importance to organizations. All experts agree: the competitive edge of many organizations lies in the unique contribution made by its specialized professionals. However, highly developed expertise is not enough to form a solid base, since such knowledge quickly becomes outdated. To be successful, an organization has to learn in conjunction with constantly changing contexts and markets. The goal of this is not so much the ‘lifelong learning’ of the professionals, but rather the implementation of what has been learned in the workplace. The idea is to become a ‘learning organization’ which stimulates professionals to exchange, maintain and apply new knowledge that they generate themselves. The need to learn and continuously renew one’s own profession holds for consulting professionals in particular, because they themselves are the main instrument of their professional actions.

This study focuses on an instrument of professionalization that enjoys a growing number of users. It is regarded as an optimal method of learning that brings learning close to professional practice: action learning (Revans, 1978; de Haan, 2004). Action learning brings fellow professionals from the same profession together to jointly and methodically reflect on issues they encounter in their work. Action learning can be given shape and form in various ways: more or less structured, more or less planned, and more or less embedded in management systems. Action learning is an instrument that has been applied in management consultancy for the past decades, and is supported by professional organizations and networks. The characteristics of the action-learning groups that have participated in this study are the following:

• A relatively homogenous composition: 4 to 8 participants, most of whom without prior experience with action learning. Groups consisted of
  o internal consultants in a certain area of specialization, such as policy, finance, HR;
  o managers with a comparable role in their organization; and
  o external consultants with comparable experience.
• A commitment of the group of professionals to attend about ten sessions within a 4-10 week interval, making use of an external facilitator for about five sessions; where the facilitator’s aim was to pass on the role of facilitator.
• A strong structuring of the sessions using action-learning methods and a clear division of roles between one consultation seeker, a number of ‘coaches’ and one process facilitator.
• A loose embedment in quality or knowledge-management systems.

Experiential Learning: A Framework for Learning by Professionals
In his book Experiential learning (1984), David Kolb describes a cyclic learning model containing two polarities of learning and covering four different learning styles:

1. The first polarity relates to ‘concrete experience’ versus ‘abstract conceptualization’.
   a. Concrete experience involves experience with something, an experience that is unique and cannot be transferred in any other way than by telling someone where to go and what to do to undergo the same experience.
b. Abstract conceptualization involves having knowledge about something. This knowledge can be expressed in language and can thus be easily transferred.

2. The second polarity relates to ‘reflective observation’ versus ‘active experimentation’.
   a. Reflective observation involves the internal processing or generating of knowledge by observing, concentrating and reflecting.
   b. Active experimentation involves the external processing or generating of knowledge by means of experimenting and acting.

According to Kolb (1984) these two polarities encompass four different learning styles:
1. **Diverging** occurs when ‘concrete experience’ and ‘reflective observation’ are combined. People with a divergent learning style view concrete situations from many perspectives and they create relationships between all kinds of aspects and perspectives. This style is characterized by observation and reflection on experiences.

2. **Assimilating** occurs based on the combination of ‘abstract conceptualization’ and ‘reflective observation’. Assimilators incorporate contrasting observations and reflections into an integrated explanation or theoretical model. This style is characterized by fitting disparate reflections into concepts or an encompassing theoretical framework.

3. **Converging** is the combination of ‘abstract conceptualization’ and ‘active experimentation’. People with a convergent learning style combine theory and practice into opportunities for action. They achieve focus by arriving at a hypothesis that can be tested or at a decision about how to continue.

4. **Accommodating** occurs when ‘concrete experience’ and ‘active experimentation’ are combined. Accommodators achieve practical results by getting to work, trying out things and seeking new experiences.

The four learning styles are independent of each other and divided into two complementary pairs (diverging opposite converging; assimilating opposite accommodating). Individual preferences for learning styles vary.

In his book, Kolb reports the result of a quantitative study with students of various disciplines (N = 583) and with managers in various professions (N = 100). He shows that students and managers primarily learn and work in the assimilative, convergent and accommodative learning styles (Kolb, 1984). Their training has given them the content they need to carry out their profession (assimilating), and they learn on the job how they can take decisions based on this knowledge (converging) and how they can actively experiment with behaviour (accommodating). Due to specialization and socialization, professionals have often developed one of the learning styles at the expense of the other styles. Divergent learning seems to be relatively absent in most professional training courses and does not become manifest in most jobs either. However, Kolb states that this learning style is complementary to the ways in which professionals tend to learn, and that diverging thus has great added value: observation, empathic and imaginative ability, which are all part of the divergent style, help one to contemplate problems from many different angles.

We have chosen Kolb’s model of experiential learning as the framework for our study. The model is generally accepted as a broad and instrumental framework to examine learning styles. Disadvantages of using this model are that it does not explicitly distinguish between ‘learning’ and ‘meta-learning’ (learning about one’s own learning process) and between externally directed learning and self-directed learning. In our study we explicitly explore
aspects of meta-learning and self-directed learning by asking participants about their expectations regarding self-efficacy and about taking the initiative to attend action-learning sessions (see our Methods section below).

**Earlier Research into the Learning Effects of Action Learning**

The only empirical study on the outcomes of action learning that we know of is one that was conducted by Driehuis (1997) and involved a qualitative analysis of some twenty action-learning sessions in consultancy firms. Driehuis’ findings are not unambiguous: he reports indications of positive effects stemming from critical reflection and new insights (diverging) and the impulse to redirect one’s own actions (converging). However, he also notes that oftentimes insufficient depth is achieved to discover underlying factors (diverging) and that the action-learning environment is sometimes too liberal, which results in insufficient external pressure on learning outcomes (converging). Finally, Driehuis observes insufficient orientation on long-term learning outcomes in some of his groups.

Some handbooks on action learning present both the explicit assumption that all of Kolb’s learning styles can be made part of action learning in a well-balanced way (e.g., McGill & Beatty, 1992, Pedler?? and Weinstein, 1998). Others place a more explicit emphasis on reflective and divergent learning in action learning (de Haan, 2004, Revans, 1978). De Haan (2004) lists the following advantages of action learning:

- reflecting based on practical situations;
- practising ‘slow thinking’ and the postponement of judgement, providing an opportunity for new connections and answers to arise;
- giving and receiving personal feedback;
- learning from the parallel patterns between behaviour within and outside the action-learning sessions (‘learning from the here and now’); and
- safety, confidentiality and mutual support, which enables more comprehensive knowledge to be created.

Disadvantages of action learning, according to some authors, stem from the relatively limited opportunities to use the convergent, accommodative and assimilative learning styles (Driehuis, 1997; de Haan, 2004):

- Action learning does not always achieve enough focus to enable participants to apply what they have learned to their own work, because evaluation and advice are postponed and the participants’ work remains outside the focus of the consultation group;
- The pressure to renew and change needs to originate in the consultation seeker; the accommodative learning that occurs upon implementation or experimentation with what has been learned, remains underexposed;
- The anchoring and the structuring of what has been learned by means of theoretical models and knowledge developed earlier remain limited. This is due to the fact that assimilating by linking of what has been learned to available literature and knowledge depends on the chance input of the professionals present.

Action learning is regarded by an increasing number of consultants as an optimal method for connecting ‘learning’ and ‘working’. However, Jennings (2002) shows some limitations of action learning within the context of Strategy courses in a business school. He compares three interactive and practical methods of teaching: a case study, a business simulation, and project-based action learning. The latter emerges as the least successful of these three, with respect to most of the criteria studied, such as knowledge transfer, problem solving, self-awareness,
collaboration, behaviour change, management perspective, adding realism to the course. Factors which seem to make action learning less effective seem to be (Jennings, 2002):

1. strenuous relationships with other managers and with organizational politics;
2. the time commitment required; and
3. lack of control over the learning situation.

This concludes our summing up of a number of advantages and disadvantages of action learning found in the literature. The purpose of this article is to test these qualitative statements by means of quantitative research findings.

**Our Research Question**

The alleged advantages and disadvantages of action learning described above have led to the following research question for this study:

- *What are the demonstrable learning effects of action learning for the participating professionals?*

With the more specific sub-question:

- *To what extent does action learning stimulate the four different learning styles: diverging, converging, accommodating and assimilating?*

These questions are explored by means of a study that is partly quantitative and partly qualitative. We used a questionnaire containing 31 questions which we sent to (former) participants in action learning to explore the subjectively observed learning effects. The additional tools we used were one open-ended question, interviews with action-learning facilitators and attendance at action-learning sessions. The questionnaire covers Kolb’s four learning styles. There are six independent variables:

1. who takes the initiative to participate in action learning;
2. the degree to which reflection on work is regarded as important;
3. time spent in an action-learning group;
4. number of action-learning sessions attended;
5. value attributed to the action-learning process; and
6. individual expectations of self-efficacy.

The individual expectation of self-efficacy has been added to enable us to measure the relationship between the learning styles of participants and their expectations about their own success or failure in dealing with difficult situations. Research by Anderson and Betz (2001) shows that the expectations individuals have about their self-efficacy directly influence their personal and career development. Personal self-efficacy expectations are often regarded as primary determinants of behavioural change (Sherer & Maddux, 1982). Individuals with high self-efficacy are more flexible and more determined to cope with difficult situations. Self-efficacy expectations appear to determine an individual’s initial decision to behave in a certain way. They also predict how much effort individuals will put in, as well as the individuals’ staying power when they are confronted with obstacles (Sherer & Maddux, 1982). Earlier research shows that self-efficacy plays a central role in the effectiveness of training courses and the transfer to practice (Bandura, 1982; Gist, Stevens & Bavetta, 1991; Mathieu, Martineau & Tannenbaum, 1993; Saks, 1997). Trainers and consultants can also influence the self-efficacy of participants, says Mathieu (1993). Based on the existing theory, we expect that participants in action learning who have the highest expectations about their self-efficacy would show the highest level of learning effects.
The remainder of this article shows that the majority of our respondents report that action learning proved a valuable process and they linked the value of the instrument to ‘learning effects’. This means that they experienced the action-learning process as a learning process. This conclusion still stands after the action-learning process has been completed. Expectations about self-efficacy, the sex of participants and the fact whether or not they attended action learning on their own initiative appear not to have an effect on the learning effects reported. Participants report that, in action learning, they mainly learn from the feedback they receive from others, from getting to the crux of issues, and from exploring the issues in depth. They learn relatively less with respect to applications and adjustments of methods, and the improvement of contacts at work. It seems that their learning does not have a strong immediate effect on their work practice.

Methods

Participants
We used data from 126 professionals and managers with different job profiles, and working for public and private sector organizations. The study involved over 39 different organizations, employees of which have attended action-learning sessions facilitated by management consultants from De Galan & Voigt over the period 1996-2001 (6 participants did not indicate their organization). 60.3% of the respondents were men and 35.7% were women (4% did not indicate their sex). Ages ranged from 23 to 58 years, with a mean of 40 (5 participants did not indicate their age). The action-learning groups involved included groups made up of professionals from one and the same organization, as well as groups made up of professionals from different organizations, but sharing the same profession. The questionnaires were sent via e-mail and regular mail to the organizations or the homes of the participants. Response was voluntary. The response rate was 42% (126 completed questionnaires).

Questionnaire
We used a self-constructed questionnaire to examine all aspects that are relevant to the research question. The questionnaire contains 32 items, consisting of 31 closed questions and 1 open-ended question. Below, the structure of the questionnaire is schematically presented:

- **Dependent variables**
  We opted for at least two questions per learning style, to be answered independently as much as possible, on a four point scale running from “no, definitely not” to “yes, definitely”. This gave us 15 dependent variables (see Table 1).
<table>
<thead>
<tr>
<th>Learning scales</th>
<th>Item</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diverging</td>
<td>6</td>
<td>“In action learning, I receive valuable feedback from the other participants.”</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>“In action learning, I recognize a great deal of myself in issues submitted by others”</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>“In action learning, my perspective on issues changes as a result of the viewpoints of others.”</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>“In action learning, I learn to concentrate on the crux of the issues at hand.”</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>“In action learning, the methods used result in in-depth exploration of issues.”</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>“As a result of action learning, I have become alert to the questions underlying the issue.”</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>“As a result of action learning, I have greater insight into the strong points of my functioning.”</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>“As a result of action learning, I have greater insight into the weaker points of my functioning.”</td>
</tr>
<tr>
<td>Assimilating</td>
<td>7</td>
<td>“In action learning, I learn to link things to knowledge I have gained before.”</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>“In action learning, I gain new knowledge.”</td>
</tr>
<tr>
<td>Accommodating</td>
<td>10</td>
<td>“In action learning, I gain experience with a new form of learning.”</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>“As a result of action learning, my contacts with clients/customers/managers have improved.”</td>
</tr>
<tr>
<td>Converging</td>
<td>14</td>
<td>“As a result of action learning, I follow new routes in my work.”</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>“As a result of action learning, I apply new ideas to my work.”</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>“As a result of action learning, I have changed my ways of working.”</td>
</tr>
</tbody>
</table>

- **Independent variables**

  In order to check the starting position of a participant, we included five filter questions in the questionnaire and measured the participants’ expectations regarding their self-efficacy with a standard tool. This resulted in the following independent variables:

  1. Participation in action learning. Does the participant attend on his or her own initiative, or on the initiative of his or her employer?
  2. Motivation for attending action learning: recognizing the importance of reflecting on one’s work. The possible responses range from (1) “not applicable to me” to (4) “very much applicable to me”.
  3. Action-learning experience, expressed by two questions about the period in which the participant started with action-learning sessions:
     - *I started attending action learning*…with the possible responses being (1) “in the past 0-3 months”, (2) “3 to 12 months ago”, (3) “1 to 2 years ago”, (4) “over 3 years ago”.
     - *I am currently part of a action-learning group*…, with possible responses being (1) “no”, (2) “yes”.
  4. Total number of action-learning sessions attended, with possible responses being (1) “fewer than 4 sessions”, (2) “between 4 and 8 sessions”, (3) “more than 8 sessions”. We did not follow the same participants during their entire action-learning process. Any statements about the influence of the number of sessions attended are therefore based on a comparison between subjects.
  5. Evaluation of the quality of action learning, for which we asked the participants to give a mark between 1 and 10 to the action-learning process.
  6. Observed self-efficacy of participants, measured with the help of a questionnaire in Dutch, adapted by Teeuw, Schwarzer and Jerusalem (1994). This is an international questionnaire, which in previous studies has shown reliability (α’s) varying from .81 to .91 (Schwarzer, Bäßler, Kwiatek & Schröder, 1997). The self-efficacy scale consists
of 10 items. Two examples of questions are: (23) “If someone works against me, I still find ways to get what I want”. (29) “If I am confronted with a problem, I usually have several solutions”. Possible responses vary from (1) “no, definitely not” to (4) “yes, definitely”.

- **Additional qualitative data: the open-ended question**
  At the end of the questionnaire, the participants were given the opportunity to express their remarks and comments about action learning in their response to an open-ended question (32). Many of the participants made use of this opportunity.

### Procedure

In the first phase of the study, Isabelle de Ridder, University of Amsterdam, studied theories and literature on the subject of action learning. In addition, she interviewed six consultants of De Galan & Voigt, which gave her greater insight into the practice of action learning from the viewpoint of facilitators. She also attended four action-learning sessions, as an observer, which gave her a clear view of the consultation process.

Based on literature, interviews, observations of action-learning sessions and suggestions made by facilitators, we constructed the questionnaire in line with the research question. After the collection of names and addresses of (former) participants, and after phoning (former) clients to get their permission and cooperation, we sent the questionnaires by e-mail and regular mail. After receiving as many completed questionnaires as possible, we analyzed the data with the help of SPSS, a statistical software programme.

### Results

#### Distribution of Participants

To take stock of the starting position of the participants in this study, we first examined the distribution of frequencies and percentages over all categories of responses for the five independent variables. See Table 2 for an overview.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Response categories</th>
<th>Frequencies</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started action learning when?</td>
<td>In past 3 months</td>
<td>14</td>
<td>11.1%</td>
</tr>
<tr>
<td>N = 126</td>
<td>3 to 12 months ago</td>
<td>33</td>
<td>26.2%</td>
</tr>
<tr>
<td></td>
<td>1 to 2 years ago</td>
<td>60</td>
<td>47.6%</td>
</tr>
<tr>
<td></td>
<td>&gt; 3 years ago</td>
<td>19</td>
<td>15.1%</td>
</tr>
<tr>
<td>Currently part of a action learning group?</td>
<td>Yes</td>
<td>91</td>
<td>72.2%</td>
</tr>
<tr>
<td>N= 126</td>
<td>No</td>
<td>35</td>
<td>27.8%</td>
</tr>
<tr>
<td>Started action learning how?</td>
<td>Own initiative</td>
<td>63</td>
<td>50%</td>
</tr>
<tr>
<td>N= 126</td>
<td>Employer’s initiative</td>
<td>63</td>
<td>50%</td>
</tr>
<tr>
<td>Number of sessions attended</td>
<td>&lt; 4</td>
<td>29</td>
<td>23%</td>
</tr>
<tr>
<td>N= 126</td>
<td>4 – 8</td>
<td>48</td>
<td>38.1%</td>
</tr>
<tr>
<td></td>
<td>&gt; 8</td>
<td>49</td>
<td>38.9%</td>
</tr>
<tr>
<td>Importance of reflection on work?</td>
<td>No, definitely not</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>N= 126</td>
<td>No, hardly</td>
<td>4</td>
<td>3.2%</td>
</tr>
<tr>
<td></td>
<td>Yes, to some extent</td>
<td>33</td>
<td>26.2%</td>
</tr>
<tr>
<td></td>
<td>Yes, definitely</td>
<td>88</td>
<td>69.8%</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>1</td>
<td>0.8%</td>
</tr>
</tbody>
</table>
Every respondent also awarded a mark to the entire action-learning process. They all scored between 5 and 9, with a mean of 7.4 (standard deviation: 0.73).

**Reliability of the Scales**

The internal consistency of all scales introduced by us can be found in Table 3. The items within the divergent, convergent and assimilative learning styles show a fairly high correlation (alpha ≥ .64), especially in view of the low number of items. The internal consistency within the accommodative learning style (alpha = .47) can be described as low: thus no conclusions can be drawn about this learning style. Self-efficacy was measured by means of the existing questionnaire adapted by Teeuw, Schwarzer and Jerusalem (1994). The 10 items in this questionnaire show an internal consistency of .79. This was slightly lower than in previous studies, in which the alpha’s varied between .81 and .91, but can certainly be described as high.

<table>
<thead>
<tr>
<th>Scales</th>
<th>N</th>
<th>Number of items</th>
<th>M</th>
<th>SD</th>
<th>Alpha</th>
<th>Correlation coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divergent learning style</td>
<td>126</td>
<td>8</td>
<td>3.31</td>
<td>.31</td>
<td>.75</td>
<td>1.00</td>
</tr>
<tr>
<td>Assimilative learning style</td>
<td>126</td>
<td>2</td>
<td>3.28</td>
<td>.38</td>
<td>.64</td>
<td>.56** 1.00</td>
</tr>
<tr>
<td>Accommodative learning style</td>
<td>126</td>
<td>2</td>
<td>3.20</td>
<td>.51</td>
<td>.47</td>
<td>.44** .36** 1.00</td>
</tr>
<tr>
<td>Convergent learning style</td>
<td>124</td>
<td>3</td>
<td>2.91</td>
<td>.60</td>
<td>.79</td>
<td>.65** .54** .53** 1.00</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>124</td>
<td>10</td>
<td>2.70</td>
<td>.57</td>
<td>.79</td>
<td>-.05 .08 -.12 .04 1.00</td>
</tr>
</tbody>
</table>

** p < .01

Unfortunately the results showed that the correlation between the different learning style scales was also fairly high (correlations are between .36 and .65, with p<.01; see Table 3). This was due to the fact that the respondents generally reported a fair number of learning effects, and therefore showed a positive score on most items. This means we should be careful about drawing conclusions about the learning styles. Replication studies with respect to the scales are required and it is recommended that additional items be included, for the accommodative learning style in particular. The correlations in Table 3 also show that the learning style scales are independent of the self-efficacy scale.

**The Quantitative Path: How Do Participants Learn?**

As described in the introduction, based on Kolb’s (1984) theory on experiential learning we expected participants in action learning to learn primarily in a divergent manner. This means that during action learning they mainly observe and reflect on concrete situations. We therefore expect the assimilative, convergent and accommodative learning styles to remain relatively underexposed.
Participants Score Mainly on ‘Diverging’
From what we have said above about the reliability of the scales, it appears that we must be
cautious about drawing conclusions based on the learning styles measured. More reliable
statements about our research question may be obtained by examining the response tendencies
of participants. To explore which action-learning aspects appealed to participants more than
others, we divided the scores of participants on the items into high, medium high, medium
low and low scores (see Table 4). In so doing, we obtained ‘low’ and ‘high’ item scores that
are more than one standard deviation apart. Based on this table, we can conclude that
according to the participants, action learning predominantly addresses the type of learning that
is described in items 6, 11 and 12. These items represent a specific type of divergent learning:
participants feel that they receive valuable feedback from other participants as part of action
learning; that they learn to concentrate on the crux of the issue submitted; and that they learn
to explore issues in depth using our action-learning methodology. Items 16, 18 and 20
describe the type of learning that is least addressed in action learning according to the
participants. This particularly relates to learning in a convergent manner. This style involves
the application of new ideas and the adjustment of one’s own way of working as a result of
action learning. Participants also reported that action learning has relatively little influence on
the improvement of their contacts with clients, customers or managers.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Items</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>High scores</td>
<td>Diverging</td>
<td>Item 6</td>
<td>3.51</td>
<td>.52</td>
</tr>
<tr>
<td>(&gt; 3.4)</td>
<td></td>
<td>Item 11</td>
<td>3.45</td>
<td>.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 12</td>
<td>3.54</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td>Self-efficacy</td>
<td>Item 22</td>
<td>3.40</td>
<td>.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 27</td>
<td>3.50</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 31</td>
<td>3.50</td>
<td>.52</td>
</tr>
<tr>
<td>Medium high scores</td>
<td>Assimilating</td>
<td>Item 7</td>
<td>3.20</td>
<td>.57</td>
</tr>
<tr>
<td>(between 3.1 and 3.4)</td>
<td>Item 13</td>
<td>3.21</td>
<td>.62</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>Diverging</td>
<td>Item 8</td>
<td>3.35</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 9</td>
<td>3.25</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 15</td>
<td>3.19</td>
<td>.67</td>
</tr>
<tr>
<td></td>
<td>Accommodating</td>
<td>Item 10</td>
<td>3.25</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>Self-efficacy</td>
<td>Item 23</td>
<td>3.10</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 24</td>
<td>3.20</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 25</td>
<td>3.30</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 26</td>
<td>3.30</td>
<td>.57</td>
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<td></td>
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<td>Item 28</td>
<td>3.30</td>
<td>.57</td>
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<tr>
<td></td>
<td></td>
<td>Item 29</td>
<td>3.20</td>
<td>.59</td>
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<tr>
<td></td>
<td></td>
<td>Item 30</td>
<td>3.20</td>
<td>.45</td>
</tr>
<tr>
<td>Medium low scores</td>
<td>Diverging</td>
<td>Item 17</td>
<td>2.94</td>
<td>.67</td>
</tr>
<tr>
<td>(between 2.8 and 3.1)</td>
<td>Item 19</td>
<td>3.06</td>
<td>.72</td>
<td>126</td>
</tr>
<tr>
<td>Low scores</td>
<td>Converging</td>
<td>Item 14</td>
<td>2.80</td>
<td>.66</td>
</tr>
<tr>
<td>(&lt; 2.8)</td>
<td>Accommodating</td>
<td>Item 20</td>
<td>2.58</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>Converging</td>
<td>Item 16</td>
<td>2.74</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 18</td>
<td>2.56</td>
<td>.66</td>
</tr>
</tbody>
</table>

A remarkable finding was that the items 14-20, which relate to learning as a result of action
learning, show relatively low scores (M < 3.06; except for item 15). This is in contrast to
items 6-13, which relate to learning during action learning, and which show a relatively high
score (M > 3.20). This shows that participants indicate they learn less as a result of action learning than during action learning.

Participants With More Experience In Action Learning Report More Learning Effects

The results showed that there is a significant difference with regard to reported learning between participants who attended fewer than four action-learning sessions and participants who attended more than eight sessions (see Table 5). In view of the fact that we have a between-subjects comparison, this only provides indications about a possible increase in learning effects as a result of attending more action-learning sessions.

Participants who attended more than eight action-learning sessions, report significantly more divergent learning (in items 8, 9, 12, 15, 17 and 19 in particular) than participants who attended fewer than four sessions (see Table 5). The group of ‘advanced participants in action learning’ also reported significantly more convergent learning (in items 14 and 16 in particular). The question remains as to whether these increased learning effects are a result of more action learning, or conversely, that self-selection within the action-learning group is at play, with those who learn more continuing to attend action-learning sessions. This can only be examined by means of a follow-up study that includes measurements taken before and after action-learning attendance.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Number of sessions? (&lt;4 versus &gt;8)</th>
<th>Currently part of a action learning group?</th>
<th>Reflection on work important?</th>
<th>Appreciation for own action-learning process?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diverging</td>
<td>.45**</td>
<td>.21*</td>
<td>.23**</td>
<td>.49**</td>
</tr>
<tr>
<td>Assimilating</td>
<td>.11</td>
<td>.04</td>
<td>.22*</td>
<td>.35**</td>
</tr>
<tr>
<td>Accommodating</td>
<td>.24**</td>
<td>.05</td>
<td>.16</td>
<td>.34**</td>
</tr>
<tr>
<td>Converging</td>
<td>.27**</td>
<td>.24**</td>
<td>.26**</td>
<td>.45**</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>.05</td>
<td>.11</td>
<td>.02</td>
<td>.04</td>
</tr>
</tbody>
</table>

*p < .05; ** p < .01

Self-efficacy Expectations Have No Effect

Expectations about self-efficacy show no significant effect (see Tables 3 and 5), in spite of the fairly high internal consistency of this scale and its validity shown in previous research. An examination of the scores on the items shows that the entire target group has fairly high expectations of self-efficacy. This may mean that the participants responded to the items in a socially desirable manner, or that they truly do have a high degree of self-efficacy. In any case, the distribution on the self-efficacy items is too limited to show an effect. Additional research needs to be done to examine the influence of expectations about self-efficacy on learning effects in action learning.

Participants Who Are Currently Part of an Action Learning Group Report More Learning Effects

Participants who are part of a action-learning group at the time they fill in the questionnaire report significantly more divergent (p < .05) and convergent (p < .01) learning. This implies that they observe and reflect on concrete situations and apply ideas to their own work to a greater extent than others (see Table 5).
Greater Recognition of the Importance of Reflection Leads to Higher Scores
Participants who find reflecting with colleagues on work more important than others, report significantly more divergent and convergent learning \((p < .01; \text{see Table 5})\). Participants who recognize the importance of reflection also award higher marks to the entire action-learning process \((R = .20; p < .05)\).

Appreciation Is Proportional to Reported Learning Effects
The results show that there is a clear correlation between the mark that participants give to the entire action-learning process and the reported learning effects \((p < .01; \text{see Table 5})\). The higher the mark they give, the more they feel they learn from action learning, and vice versa. This holds both for divergent, convergent, assimilative and accommodative learning. As expected there is no relation between the mark that participants give to action learning and their expectations about self-efficacy.

Result Is Independent of Who Takes the Initiative to Attend Action Learning
This study contains an additional filter question that is used to check the starting position of the participants. We expected participants who took the initiative to attend action learning to show a different attitude to the learning process than those who ended up in a action-learning group as a result of initiatives taken by their employer. However, there appears to be no significant difference between the two groups. There are also no significant differences in learning by women and men.

Summary of Quantitative Results
This study focuses on the question: “What are the learning effects of action learning for participants?” with the specific research question being: “To what extent does action learning stimulate the four different learning styles: diverging, converging, accommodating and assimilating?”

Due to the limitations of this study, we will only speak of the absence or presence of significant indications and we will not speak of observed effects. Our results are the following:

1. Indications that participants mainly learn in a divergent manner in action learning.
   There are three particular aspects of divergent learning involved here:
   - Participants feel that they receive valuable feedback from other participants during action learning.
   - Participants learn to concentrate on the crux of the issues at hand.
   - Participants learn to explore issues in depth, using action-learning methodology.

2. Indications that convergent learning in particular remains relatively underexposed in action learning. The following aspects are involved:
   - Participants report a minimum application of new ideas to their own work.
   - Participants hardly adjust their own working methods as a result of action learning.
   - Participants report a minimum improvement of contacts with clients, customers and managers as a result of action learning.
3. Indications that an increase in learning effects arises when more action-learning sessions are attended. These are indirect indications, because we compare between subjects.
   • Participants who attended more than eight action-learning sessions report significantly more divergent and convergent learning than participants who attended fewer than four sessions.

4. Few indications of own initiative or self-efficacy as a relevant dimension.
   • No differences in reported learning between participants who took the initiative to attend action learning, and participants who join action-learning groups as a result of their employer’s initiative.
   • Expectations of self-efficacy of participants appear to have no influence on reported learning effects.

5. The response to three filter questions resulted in a significant effect:
   • Participants who are currently in an action-learning group report significantly more divergent and convergent learning effects than participants who have finished the process.
   • Participants who find reflection with colleagues on work more important than others report more divergent and convergent learning effects. These participants also give the entire action-learning process a higher mark.
   • Participants who give a higher mark to the entire action-learning process report significantly more learning effects.

The Qualitative Path: Action Learning as Reviewed by Participants
The participants have together provided almost a hundred quotes in their responses to the open-ended question at the bottom of the questionnaire (“Do you have any further remarks about your experience with action learning?”). It appears from these qualitative results that many participants regarded action learning a valuable tool for learning, the use of which should be stimulated to a greater extent in their organizations. They experience action learning as a ‘frank’ method which at the same time guarantees a respectful approach to personal issues. Here is a typical reflection:

“In my view, it is a concept that should be introduced in the entire organization. I started with action learning from my middle management job, but I feel people at lower levels in the organization should also be given the opportunity to do this. I was involved in a similar process, called the learning network, in a previous job, and learned that if all employees are involved, problems are increasingly solved among people themselves (talking with each other rather than about each other became the norm) and both the commitment and the resolve to think in solutions grew as a result.”

Participants feel the strength of action learning lies primarily in receiving support from colleagues:
   ➢ they see that other professionals also struggle;
   ➢ they note that others also have things to learn;
   ➢ they learn about the problems their colleagues encounter in their work;
   ➢ they use colleagues to put things into perspective; and
   ➢ they make use of the strengths of the other members of the group.
Quotes from participants show that their mainly divergent learning does not only relate to learning by means of reflecting within the boundaries of their everyday practice, but also contributes to the development of self-knowledge and insight in a broader sense:

“What proved extremely useful to me is the effect of ‘breaking through paradigms’ that resulted from consultation; it has often broadened my way of looking at problems.”

“The intensification of forming judgements and the structured learning to find ‘hidden meanings’ prove extremely valuable to me. Getting to know yourself and your own motivations better may not directly help me in my work, but it does help me decide where I want to go.”

“The action-learning training was a stimulating experience: a whole new way of exploring and discussing issues.”

“I feel the usefulness of action learning lies in the field of personal learning; developing and practising personal skills.”

“An important aspect of action learning is personal insight, in addition to insight into your work.”

The following quote from a participant shows that action learning can indeed prove beneficial in practice (hinting at convergent and accommodative learning):

“Since I have become a member of two action-learning groups, I dare take on things that are entirely new to me. Participation in the consultation groups provides me with the security of support in difficult situations.”

However, there were also indications of a lack of application of ideas and of experimentation with behaviour as a result of action learning. Participants point to the following factors that may be at play:

“The gap between theory and practice. It is easy to practise in a laboratory situation and form intentions which, in practice, you quickly have to forsake for reasons of pressure for time and results and the need to avoid conflicts.”

“Action-learning experiences are often not directly applicable to the work that I do. And I do not feel they need to be, because action learning is a personal learning process which renders long-term effects on my work.”

“Action learning is a good instrument, but its success depends on whether or not it is applied, and in my case the daily routines have made the entire action-learning process become less important and I regret that.”

Many participants emphasized their own responsibility, motivation and stamina. Here are some examples:

“I am glad that as a group we learned to facilitate our own process. Your responsibility to each other increases as a result; you become more dependent on each other. You are the one
to decide whether the group will continue or not. It should not be up to an external facilitator to push everyone to attend and to submit cases. Another one of those modern views: you are responsible for your own learning!”

“It is desirable that the group always has a clear view of the developmental route you go through together. In other words: ‘where are we going, and for what purpose?’ A good balance between personal learning goals and the joint learning route requires attention. Personal learning goals may be pushed aside if you are not alert enough.”

The composition of the group also has a clear effect on the learning process. One of the participants felt:

“If a group is composed of highly experienced and less experienced people, I feel the learning effect of the highly experienced people is limited, unless a less experienced person has extremely inspirational and original ideas. I think a mixed group works better if the participants do not work for the same company.”

The success of a consultation group also has a great deal to do with a sense of security and trust (see de Haan, 2004). Many participants emphasized a sense of increased security when they can discuss their complex work situations with fellow professionals from other organizations. They added that it gives them a broader perspective on how other organizations function and how problems are regarded in other sectors. The following quotes provided insight into the potential limitations of internal consultation groups.

“Outside my immediate work environment, I will be able to take a vulnerable position and I will sooner share personal things or mistakes with people. For now, the added value of my action-learning group which is comprised of people from within my organization, lies in obtaining new tools to better support or reinforce each other in individual contacts. As a follow-up, I feel individual coaching would be best and working with people I myself can choose.”

“An internal action-learning group would render fewer results because you can achieve less depth.”

“The current action-learning group has the advantage of being outside my own organization. Two internal reflection meetings resulted in successes but also in some reserve on the part of participants.”

Below are examples of the many quotes that emphasize trust, openness, respect and continuity:

“If trust arises between members of the group, the advice gains in quality and we regard each other much more critically (in a positive way). The aspect of time is important here. A lack of time may cause a group to fall apart quickly. It is extremely important that the group stays together.”

“Due to the continuity, the action-learning group forms a very special bond, high in integrity and with a great deal of respect for each other. That remains very important to me.”
“Action learning is an excellent tool, but I do feel results are limited because the sessions are not held frequently enough. What we have learned quickly fades. A follow-up based on a case submitted can also be very useful for the group. The learning effect remains because the case is discussed again.”

“It is essential that action learning is implemented over a long period, otherwise you go back to your old ways.”

Various participants commented on a phase of stagnation that occurs at a certain point in the learning process of the group. They had different ideas about how to deal with this:

“Action learning took place with a fixed group of people, after a while we noticed that our action learning offered few new insights. We would always return to old patterns. It is important to change groups after a while.”

“I think it would be beneficial to change the composition of the action-learning group in order to retain dynamics in the group sessions.”

“What is becoming a problem in my action-learning group is the fact that after 6-8 sessions you know each other too well and you become much less critical of each other, thus the added value of the sessions decreases. Moreover, people’s motivation and the number of cases submitted decrease. I enjoyed having another session with the external facilitator after 6-8 sessions with the same group.”

Finally, it became clear that the role of facilitator is not an easy one. Participants submitted the following comments about the facilitation of consultation groups:

“The trainer’s facilitation was excellent, and extremely stimulating. Once we started with sessions without the trainer, things degenerated. Without the trainer the quality of the results decreased. We might have benefited from more sessions with the facilitator, who could have trained us to facilitate our own action-learning sessions much better.”

“I would like to see a great deal of attention paid to facilitating groups; we are not ready yet to do it ourselves.”

“What I found an essential aspect was that the facilitator sticks to his role. Once he/she steps out of his/her role the quality of action learning suffers.”

**Summary of Qualitative Results**

In summary, the positive aspects the participants mention are that action learning is a frank, ‘positively confrontational’ and respectful process; that it reinforces commitment to each other; breaks through paradigms and is innovative; and contributes to personal development and courage. The negative aspects they mention are the limited applicability in practice; not being able to think ‘out of the box’ especially in internal learning groups; and the potential stagnation when a repetitive process continues for too long. Important conditions that are often mentioned are security, trust, openness, respect, continuity, frequency of meetings, stamina, and attention paid to personal learning goals.
We regard most reflections from the participants as additional confirmation that action-learning groups mainly involve divergent learning, because divergent learning appeals to the sensitivity, mutual relationships between people, and sensitivity for others that they describe. What also stands out is the fact that participants report that results are often not directly applicable in practice, which is another indication for the underscoring of converging and accommodating in action learning.

**Conclusion**

Participants in this study report that action learning proved a valuable process to them, with an average appreciation of 7.4 on a scale from 1 to 10, and they link the value of the instrument to ‘learning effects’. This means that they experienced the process as a learning process. This conclusion remains robust after completion of the action-learning process, and is felt more strongly by participants who regard reflection on their own work as important. Self-efficacy expectations, the sex of participants and whether or not the participants attended action learning on their own initiative appear to have no influence on the reported learning effects.

Participants report that they learn more during action-learning sessions than as a result of action-learning sessions. They learn most from the feedback they receive from others, by ‘getting to the crux of issues’ in action learning, and because their issues are explored in depth (items 6, 11, 12). In addition, they learn about their own strengths and weaknesses, gain new perspectives and insight into ‘the question behind the question’, new knowledge, new ways of learning, and new routes to follow in practice (items 7, 8, 9, 10, 13, 14, 15, 17, 19). Finally they learn least in the area of application and adjustment of ways of working, and improving their contacts at work (items 16, 18, 20).

It is striking that of the eight learning effects reported most often, six are unambiguously part of the divergent learning style (see Table 4). It is also remarkable that the four learning effects reported least often include all three elements of the convergent learning style. Thus there are clear indications that action learning addresses the divergent learning style more than any other and that it least addresses the complementary learning style of converging. No general statements can be made about accommodative and assimilative learning as learning styles, yet the various items that we associate with these learning styles show a medium low to low score. We certainly do not find any evidence of a balanced appeal to all four learning styles, as e.g. McGill & Beatty (1992), Pedler?? and Weinstein (1998) seem to suggest.

In response to the question this article started with: “How do participants learn?” there seems to be appearing a picture of a learning group that learns most during action-learning sessions, and mainly by exploring issues in depth, and receiving personal feedback. Divergent learning seems to reign.

Generally speaking, this confirms the findings of Driehuis (1997) and the expectations of De Haan (2004), who both also emphasize reflecting and divergent learning. Driehuis reports indications of a positive ‘impulse to redirect one’s own actions’. However, we find extremely low scores on the items geared to redirecting one’s own actions (items 14, 16 and 18; see Table 4). But if we look more closely, we see that Driehuis mainly finds an ‘intention to redirect one’s actions’ and an ‘expected redirecting of others’, while true ‘experimentation with redirecting own actions’ clearly scores lower. So also Driehuis finds few indications of accommodative learning.
In conclusion we would like to note the following:

- There are indications that the learning in these small groups slowly deepens with time, particularly in the direction of more sensitivity (diverging) and application in practice (converging). Unfortunately, we cannot rule out the effect of self-selection: the staying on board of participants who already experienced more convergent and divergent learning. We do conclude however that participants who show greater intrinsic motivation to reflect on issues at work, i.e. divergent learning, get more out of the action-learning process.

- According to the participants, the same convergent and divergent learning mainly decreases as time passes after completion of the action-learning process. This indicates a relapse in learning after completion of the process, which is consistent with well-known facts about the transfer of training (Broad & Newstrom, 1992). At the same time, it is interesting to see that participation in action-learning groups does seem to increase convergent learning, i.e. application.

- To our surprise we received a great deal of qualitative statements from participants emphasizing their own motivation, stamina and responsibility for the learning process, while the quantitative part of our study indicates that the participants’ own initiative and expectations of self-efficacy do not make a difference to learning effects. It may well be that this stems from a rationalization that has little to do with reality, an ‘espoused theory’ that has no anchoring in the participants’ ‘theory in use’ (in the words of Argyris & Schön, 1978). Various types of self-managed and autonomous learning have enjoyed increasing popularity over the past decade, and are praised by professionals and consultants as essential to a successful learning process. Based on the results of our study, we doubt whether self-managing is indeed that important for the mainly divergent learning that is involved in action learning. In the eyes of the participants, action learning is a confrontational and frank process (see above, qualitative results), and it therefore, evokes insecurities and doubts. We feel that in such circumstances it is not always prudent to make learners completely responsible for their own learning process. On the contrary, we think that the learning situation benefits from clear external direction enhanced by explicit roles (consultation-seeker, process facilitator, and coaches) and structured sessions. In view of the fact that our study has not explicitly dealt with this aspect, we recommend that further studies be undertaken.

- As organization-development consultants and coaches, we often learn a lot ourselves in action learning. The role we most often take, that of the action-learning facilitator, is an unique one in our consulting practice, particularly for the kind of learning that it engenders. As we believe we have shown here, that kind of learning is largely and dominantly divergent. As noted before, Kolb (1984) shows that students and managers in organizations primarily learn and work in the assimilative, convergent and accommodative learning styles. Divergent learning seems to complement those kinds of learning that take place most frequently in organizations. To our mind, this makes divergent learning particularly conducive to periods and places of uncertainty, ambiguity and change, when the ‘normal’ ways of learning do not always apply. As organization-development consultants, we have personally practised numerous interventions first during the facilitation of action-learning groups that we could later apply in our consulting work with organizational and personal change.
References


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