Design as narrative: developing students’ design practice by improving design description

This item was submitted to Loughborough University's Institutional Repository by the/an author.

Metadata Record: https://dspace.lboro.ac.uk/2134/955

Publisher: © Loughborough University

Please cite the published version.
This item was submitted to Loughborough’s Institutional Repository by the author and is made available under the following Creative Commons Licence conditions.

For the full text of this licence, please go to:
http://creativecommons.org/licenses/by-nc-nd/2.5/
Design as narrative: developing students’ design practice by improving design description

Ahmed A. Bakarman
University of Sheffield, UK

Abstract
Deconstructing design action into different activities creates a framework for assessing students’ design practice. This paper presents some findings of research which was conducted to develop a design learning tool which aims to allow students to present and discuss their design practice in the manner of narrative. The Reflective Practice Theory description of the design provides the research with a framework, which was adapted and modified to develop the required tool.

Keywords: design education, learning tool, reflective practice, deconstructing design activity

Introduction
The Reflective Practice Theory, which was developed by Schon as a paradigm for describing design activities, considers design action as a conversation between designer and design situation. This description creates unique opportunities for researchers to understand this act, and implement it into different applications. The theory proposes a new design description, which deconstructs the design act into four activities, each one representing a specific moment in the design process (Schon, 1983; Valkenburg, 2000). The design act is deconstructed, or broken down, into specific stages such as: naming, framing, moving, and reflecting. This creates a framework for teaching students how to present and discuss design in meaningful manner. The new tool that we called ‘Architectural Learning Tool’ (ALT) aims to develop the students design skill through achieving the following objectives.

- Improving students design practice.
- Increasing students’ participation in the design studio.
- Exposing students to designers’ experience.
- Increasing the students’ understanding of design situations.

This paper will concentrate on the first objective through developing a design-learning tool that could allow students to present and discuss their design practice, and that of others, in the manner of narrative. The narrative act deconstructs the event into a sequence of stages, and at the end, the whole sequence of stages could draw a complete picture of the event. Therefore, students could perform their design presentations and discussions by deconstructing their design process into a sequence of events, starting with the naming stage, in which the students identify the main aspects in the design problem, and ending with the reflecting stage to evaluate their design decisions. This framework of presenting and discussing could enhance the discussion mode of others and direct their discussion and feedback toward these stages. ALT adapts Schon’s description and develops it to formulate a means of communication between student and others. This research aims to improve the student’s design practice by improving:

- the designing act
- the ability to discuss
- the ability to present.

Therefore, the researcher aims to provide students with the required tool to assess and improve their design practice. To create the appropriate environment inside the design studio, a new design-teaching model has been developed (Bakarman, 2000). This consists of two parts:

1 deconstructing the design process
2 replicating other students’ design acts.

In this model, students conduct their design presentations and discussions by deconstructing the
design process according to the four activities framework, and expose themselves to other designers’ experience by replicating their design practice. The researcher had identified a significant improvement in students’ awareness about different aspects in their design practice, and how they could carry out a meaningful design discussion.

Deconstructing design activities

The main reason for imposing such a framework is to allow students to organise their design discussion and presentation around specific stages, which, at the end, could enhance the students’ design practice. The Reflective Practice Theory deconstructs the design act into four activities as follow:

1. Naming

At this stage, the designer names, or identifies, a number of characters that represent the main issues in the design problem. As Valkenburg argued (Valkenburg, 2000: 73): ‘…the designer makes a choice for what he thinks matters in the design situation’.

2. Framing

At this stage, the designer reverses, or twists, the character’s need into architectural format. Frames, according to Valkenburg ‘….are sense-making devices that establish the parameters of a problem’ (ibid: 74).

3. Moving

At this stage, the designer conducts an experimental design action, or proposition, to test the frame(s). Valkenburg described this activity as …the actual designing takes place. The designer experiments to solve the design problem. Activities, like generating ideas, exploring problems, or looking at the consequences of design decisions, undertaken by the team, are called moves. (ibid: 74)

4. Reflection

This is the last step in this sequence. Here, the designer evaluates and criticises not only the last move(s), but also the framing act preceding it, which will determine the consequence step, either by constructing another move or by re-framing the design situation again. Schon (1983: 63) stated that:

…the designer evaluates his moves in a threefold way: in terms of the desirability of their consequences judged in categories drawn from the normative design domains, in terms of their conformity or violation of implications set up by earlier moves, and in terms of his appreciation of the new problems or potentials they have created…

These activities usually occur in sequences, but the cycle may not be completed in full because some moments of jump or overlap may occur, and in general, the four activities occur in most design activities (Valkenburg, 2000). In some cases, the designer may introduce a new character and ignore it without sufficient assessment, which could be considered later as a missed opportunity. Alternatively, the designer may conduct a new move when the best would have been to re-frame the design problem again. In addition to that, if the designer misinterprets a character’s need, they could frame it incorrectly, which could affect the consequential move(s).

Design experiment

The design experiment was designed to test the effectiveness of the ALT’s framework and consisted mainly of three stages:

1. Designing Stage
2. Replicating Stage
3. Re-designing Stage.

The three stages reflect the essence of the ALT. There are some aspects to be clarified before describing the experiment.

Subject profile

The ALT as a learning tool, aims to provide students with a new design method and mode. Therefore, determining the subjects and the appropriate stage to apply the ALT was studied in great detail. Using the UK architectural educational system as a model, the appropriate stage was found to be the second year. The second year was appropriate for many reasons.

1. The nature of the second year as a mid-way point in the British architectural education system, where students acquire their basic skills.
2. The students, at this level, do not yet formulate their own design strategies and methods.
3. The students’ design practice can easily accept new design models and techniques.
Studio setting

Increasing students’ participation in the design studio is considered as another objective of the research (Bakarman, 2000). Therefore, the researcher tried to create a student-centred environment. Doidge (2000) criticised the student-centred environment and reached the conclusion that: students view design crit (criticism) as a key means for acquiring professional knowledge and experience. They valued it highly; the students were waiting to hear from the design tutors more than other colleagues. The design crit was, therefore, converted into a mixture with maximum student involvement and minimum tutor involvement.

The project

The project was to design a small pavilion in a park. The building was The National Fairground Archive Interpretation Centre; it was intended to host a collection of material on fairgrounds, such as pictures, posters, and other archive materials. This type of project, as students stated at the final interview, was the perfect size for such an experiment.

The time frame

The students were given five weeks for this project. The aim behind such a short time was to allow students to develop a design concept only, without going deeply into the details.

The experiment sequence

During the experiment, the whole sequence of events was not given to the students in advance, instead each stage was introduced after the completion of the preceding one.

The experiment stages

The designing stage

At this stage, the project was commenced as a normal design studio, and the researcher was aiming to allow students to utilise their own design method and mode without imposing a new one. The reason was to give the students the freedom to practice design as usual, and only after that could they conduct comparisons and identify the differences between the two models. The design action started by discussing the design brief. A site visit was organised followed by a client’s meeting, in addition to visiting the Fairground Archive at the University of Sheffield. During the first week, the students completed the design’s conceptual phase and conducted several crit sessions at their workstation with the studio tutors. At the end of the week a more formal design crit was conducted. This was formulated as a 'student-led crit' (White, 2000) to encourage students to be active and participate in the design discussion and presentation with minimum involvement of design tutors.

The replication stage

After the first formal design crit, the researcher introduced ALT and its framework emphasising the role of precedents either from the designer’s experiences or from others. After that, the students were each asked to explain their design process to a colleague using drawings, sketchbook(s), and model(s). At this stage, the students were asked to follow the new framework and deconstruct their design process according to that, and to identify the four stages if possible. The second step was to ask each student to replicate the design process of his or her colleague and to complete a replication report according to the four activities framework. At the meeting that followed, each student presented his/her replication report, which allowed other students to comment on and justify their ideas and intentions. It also allowed the two students involved to defend their ideas and clarify them if their thoughts had been misinterpreted or misunderstood.

Re-designing stage

At the end of the replication stage, each student was asked to redesign the project in a new site. This stage took around one week, and each student was asked to redesign the project in the manner of another student (Bakarman, 2000). The reason behind the change of the site was to encourage students to fully understand a fellow student’s scheme, and extract the essence of the designer’s concept. Each student was allowed to communicate with the other student during the redesigning stage to clarify any aspects, but the new scheme had to reflect the essence of the first student’s concept.

At the end of the third stage, the final design crit was conducted. Here, each student had to present the first and the second scheme, making comparisons in the following formats:
- a comparison between the design mode of the same student in the two schemes
- a comparison between the design approaches of the same student at the two sites
- a comparison between the two students, and how each one had handled the same project at the two sites.

**Evaluation method**

The researcher employed various means to get the students’ feedback and capture their feeling, using a questionnaire and interviews. All of the sessions were recorded and transcribed, and the students’ drawings and sketches were studied and analysed. In addition to this, a questionnaire was distributed, after the final design crit, to get the students’ immediate feedback. Interviews were carried out in two different formats: group and individual.

**Experiment results**

ALT, as a means for assessing the students’ design practice, creates the opportunity for students to assess their own design practice. From the data analysis, the researcher has identified a number of findings that fulfil some of the research objectives and aims.

These findings are as follows:

1. ALT, as a learning tool, provides students with a means of communication between the designer and others.
2. Precedents play an important role during the design process. They are a source of inspiration providing design concepts and ideas.
3. ALT became a means for improving and assessing design practice from a number of different perspectives. These were:
   - identifying the strong and the weak side of each student’s design practice
   - identifying missed opportunities and ignored design approaches
   - providing students with a way of viewing and assessing their design practice from a different perspective.

The paper will discuss the last category and leave the other categories to be discussed in the future.

**ALT as means for improving and assessing design practice**

The findings of the experiment may be categorised as follows:

- Identifying the strong and the weak sides of each students’ design practice.

In the students’ interviews and the questionnaires, they were asked to consider ALT as means of assessment for their design practice (Figure 1). The deconstructing activities highlight the main stages of the design process, and guide the students to evaluate each stage in isolation from other stages in order to identify the strong and the weak sides. The replication activities allow students to encounter and understand the design process of others and clarify some weak points in their practice (Figure 3). The re-designing process exposes the students to others’ design practice, which at the end allows them to identify the main reason behind different design decisions and evaluate their design practice (Figure 2). In addition to this, the new design setting improves the quality of the students’ participation by allowing comparison with the existing design setting (Figure 4).
b Identifying missed opportunities and ignored design approaches.

Deconstructing, replicating, and re-designing activities provide students with good opportunities to look again at their design practice and identify many missed opportunities and some ignored design approaches. While students are involved in the design action they may be distracted from the most important things, as Cotton argued:

If you are in the middle of things, your attention cannot be focused all the time on what is best for learning; you tend to get involved, so that selective attention starts to work and you may miss some essential point of experience. When you have the chance to see the events again you have a much better chance to balance and select from learning. (Cotton, 1995)

The ALT activities allowed students to be reflective and reconsider many design decisions. At the replication stage, students were able to identify many good concepts, which were not well developed and were considered as missed opportunities (Figure 5). On the other hand, when the students track the design development of other students, some identified a number of promising design approaches that were discarded or ignored by the designer during the design action (Figure 6).

Figure 4: ALT helps to identify significant differences between the new design mode and the existing one.

Figure 5: ALT helped to identify the missed opportunities.

Figure 6: ALT helped to identify ignored design approach.

Figure 7: ALT helped students to look at their design practice from different perspectives.

Listening to the replication report, and watching the result of the redesigning action allowed most students to view their design practice from different perspectives, and to be more sensitive toward their design practice and making considerable revisions to some of their design strategies (Figure 7). The replication activities not only benefited the replicator but also the first designer. The first designer had the chance to examine the replication report and see how others viewed his/her design practice.

From the questionnaires and the interviews, we can see that the majority of the students were aware of the opportunities that the ALT provided for them; they valued the chance to view their design practice from different perspectives.

Further work

The students believe that ALT is certainly useful as a ‘one-off’ experience, or possibly used from time to time. It could, therefore, be seen as an assessment tool to improve students’ design practice. ALT may need to be converted into an educational technique which design tutors could utilise as required in design studio practice. The ultimate format for the ALT could be as a technique, which can be used by students whenever they need to assess and criticise their design practice. To achieve this, further studies and development work will be required.
References

Bakarman, A.A. (2000) ‘Architectural Learning Tool: Encouraging students to learn from their experiences’, in Re-inventing Design Education in the University, Perth: Curtin University, Perth, Australia, School of Design Curtin University of Technology


