

**A POSITION PAPER ON
THE IMPLICATIONS OF
CLASSROOM FURNITURE DESIGN CHOICES
FOR RAISING EDUCATIONAL STANDARDS
IN TURKISH PRIMARY SCHOOLS**



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EXECUTIVE SUMMARY

Combined bench/desk furniture has served Turkey well in the past, when traditional teaching methods were the norm. With the introduction of the New Curriculum, the classroom is often used in a different way. For example: active learning, practical and group work, cooperative learning, simulations and role play have much more significance.

Traditional furniture, because of its design limitations, constrains and often prevents teachers from arranging their classrooms in ways that promote modern methods of teaching and learning - with negative implications for educational standards. Modern furniture designs offer much greater flexibility.

On pedagogical grounds, at the earliest opportunity, Turkish education authorities should cease from procuring traditional combined bench/desks for Turkish primary schools.

As a matter of priority, the Ministry of Education should initiate several pilot studies to test different modern furniture designs in the classroom. It should then use the results of these studies to draw conclusions about comparative pedagogical benefits, weighed against costs.

It is highly recommended that piloting activity includes the trialling of semi-hexagonal and semi-circular tables in lower primary classes. These are being used very successfully in other international contexts, helping to raise educational standards.

Any changes introduced in the future, with regard to furniture procurement, are likely to be more effective if supported by relevant teacher training. SBEP has developed resources that can be used to this effect.

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1. INTRODUCTION:

The purpose of this position paper is to encourage policy makers to reflect on classroom furniture design, its implications for learning, and for raising educational standards in Turkish primary schools.

The type of furniture traditionally supplied to Turkish primary schools has served the country well, for many years, in that it has been ideally suited to traditional methods of teaching. However, with the introduction of the New Curriculum, increased emphasis is being placed on non-traditional teaching methods in the belief that they have greater potential to raise educational standards. Active learning, problem solving, cooperative learning and group activities and other progressive learning and teaching methods have far more importance under the New Curriculum, and teachers are required to adopt a far wider variety of teaching methods.

To reflect and support the principles of the New Curriculum and the diverse teaching and learning approaches being promoted, classroom layouts themselves need to be far more flexible. The main design constraint of traditional furniture is that it does not offer this kind of flexibility.

Alternative furniture design choices can offer just the same suitability and potential as traditional furniture to create formal teaching arrangements in support of traditional teaching styles. However, it is the increased classroom design flexibility that non-traditional furniture offers - especially with regard to its suitability for cooperative learning arrangements - which is its main additional strength.

There is a challenge to increase awareness, among policy makers, of how important these educational issues are. This position paper is an attempt to do just that. There is also a challenge to change procurement practices, so that traditional furniture is no longer supplied in new-build situations, or when old furniture is replaced.

In what follows, this position paper looks in more detail at:

- The educational importance of classroom layouts and how different kinds of layout can either constrain or promote learning.
- The design constraints of traditional furniture and the tremendous inertia it exerts on teachers, preventing them from adopting more progressive approaches as demanded by the New Curriculum.
- The flexibility offered by modern furniture design, and the potential this has to raise educational standards.

- The especial suitability of two particular design solutions - semi-hexagonal and semi-circular tables - for lower-primary children.
- Cost implications of policy changes in procurement practice - relating to furniture design choice.
- Implications for teacher training,

Finally, this position paper sets out some conclusions and recommendations.

2. THE EDUCATIONAL IMPORTANCE OF CLASSROOM LAYOUTS

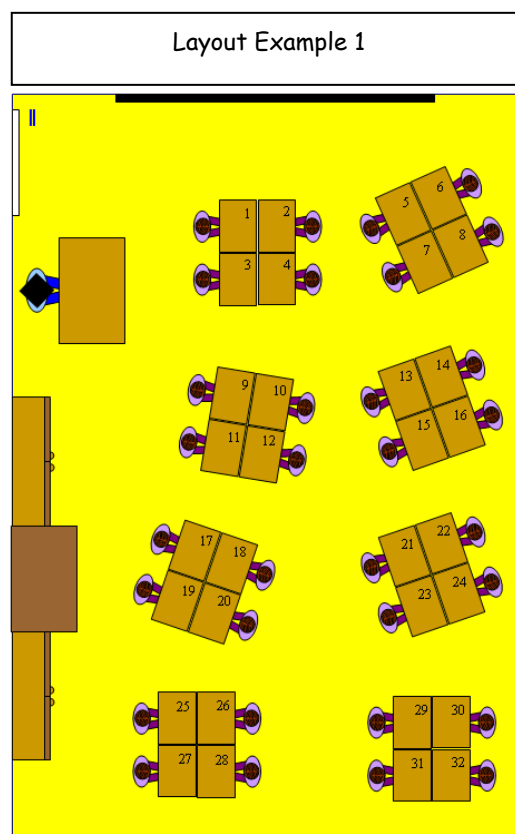
Four example layouts are highlighted in this section, and a few of their important characteristics are discussed.

Before turning to the layouts themselves, it is first helpful to consider some important educational principles:

- No single layout is perfect for all types of teaching. However, some layouts are far more versatile than others; whereas other layouts are particularly well suited to certain types of teaching situation.
- Teachers should not usually keep to one classroom layout. They should be encouraged to change classroom layouts, according to the nature and demands of the particular classroom activity being taught or supervised at the time. If necessary and appropriate, layouts can be changed from lesson to lesson and even within lessons!

Turning now to some observations of the example layouts themselves, Layout Example 1 is a good example of a flexible teaching layout. It will work well for formal (i.e. traditional) teaching. When the teacher is stood at the blackboard, teaching from the front, all students only need to turn their heads or their chairs slightly to listen comfortably. In addition, Layout Example 1 is:

- ideal for cooperative learning and discussions;
- ideal for sharing of materials;



- ideal for group work;
- ideal for pair work;
- ideal for practical work.

In other words, in summary, Layout Example 1 is very flexible and extremely well suited to many teaching styles.

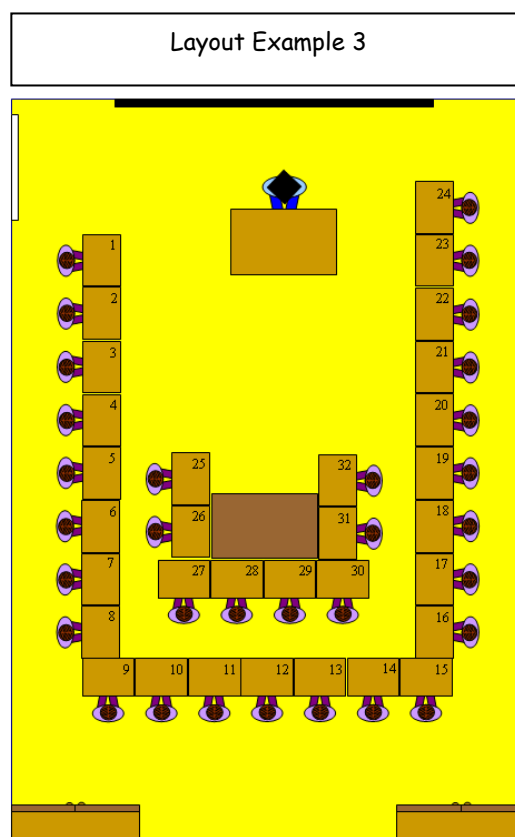
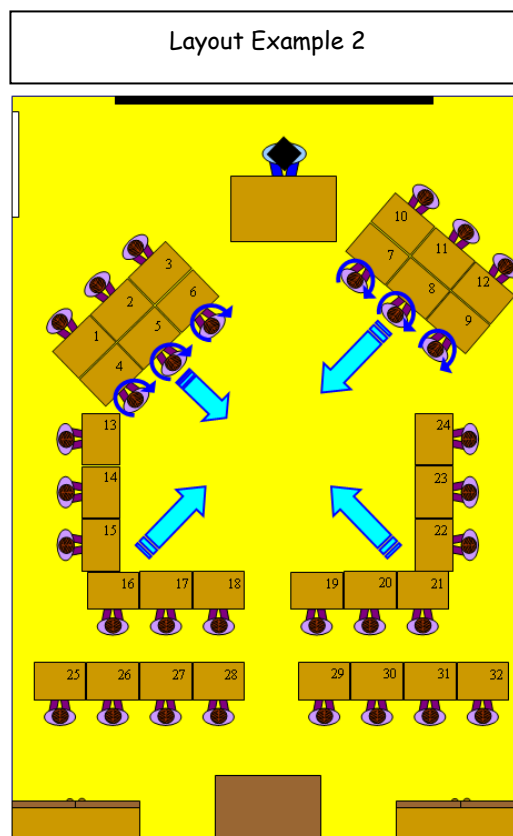
Layout Examples 2 and 3 are rather specialist layouts, suited to particular teaching situations.

They are particularly well suited to teaching that involves a lot of any of the following three activities:

- Discussion;
- Role Play;
- Practical Demonstrations.

There are three key features of both designs:

- There is a large central area, which all students are facing. This can function like a stage in a theatre. It is an ideal space for role play and demonstrations. All students will have a good view of the activity. No student is a long distance away from the activity. (Compare this arrangement with Classroom Layout 1. If the teacher was conducting a practical demonstration at the front of the class, in Layout 1, it would be very difficult for students at the back of the class to see, or feel involved.)
- Most students get a "front row" view of any activity. Only a few students have to settle for a "second row" view. No student is seated in a "third row", or worse.
- From anywhere in the room, any student can make eye contact with MOST other students without having to turn round. This is good for discussions.



Layout Examples 2 and 3, while not particularly well-suited for formal teaching, would function adequately for this purpose for short periods.

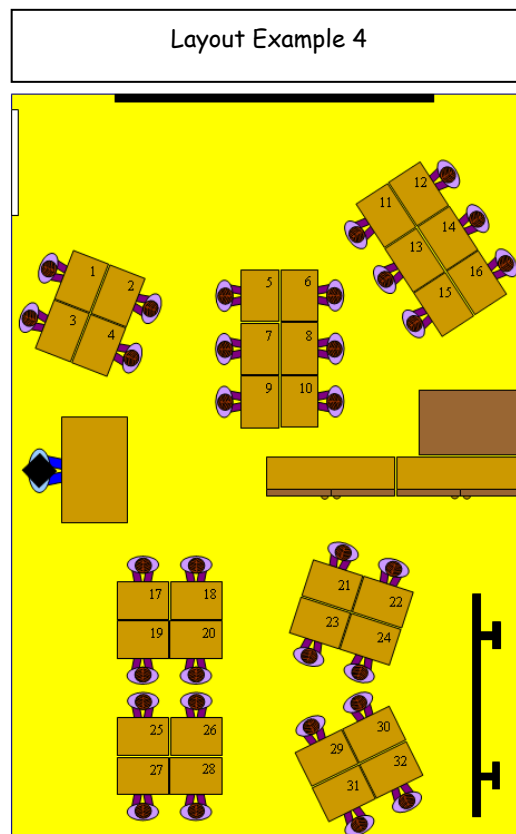
Layout Example 4 has all the characteristics of Layout Example 1. In addition, it would work well for multigrade or multi-level teaching - where the class has been split into two sections.

3. DESIGN CONSTRAINTS OF TRADITIONAL FURNITURE

The important summary point to be made, for the purposes of this position paper, is that all of the layouts highlighted in Section 2 above (and many others!) can easily be achieved with most modern designs of furniture. However, they are almost impossible to achieve with the design of furniture traditionally supplied to Turkish schools. This is a tremendous pedagogical constraint.

The traditional design of furniture is also heavily engrained in the minds of teachers, as being associated with traditional layouts. It is consequently extremely difficult to break this attitudinal association.

There are thus two constraining forces at work: the intrinsic lack of flexibility of the furniture; and the entrenched associations in the minds of teachers as to how it should be set out in the classroom. These combine powerfully. The end result is that, in the vast majority of classrooms supplied with traditional furniture, teachers adopt permanent layouts of the kind shown in the following photographic examples.



The typical classroom layout presently seen in so many Turkish Schools:



But it should not stay this way. This position paper highlights the educational benefits of making changes, in support of the New Curriculum. It also highlights the role that alternative furniture designs can play in facilitating change.

Even where new furniture has been provided, for new schools, as under the Support to Basic Education Project, the end result is often still the same:



4. FLEXIBILITY OFFERED BY MODERN FURNITURE DESIGN

The following photographs speak louder than words. They show what can be achieved, and is being achieved in some Turkish schools.

The non-traditional furniture, in these examples, plays an extremely important role in empowering teachers to break away from sole reliance on traditional teaching layouts.

What is seen in these photographs is students engaged in: active learning, cooperative learning, and problem solving - exactly the kinds of activities promoted by the New Curriculum.



The following photograph confirms that non-traditional layouts can still work well for formal teaching, as discussed in Section 2 above.

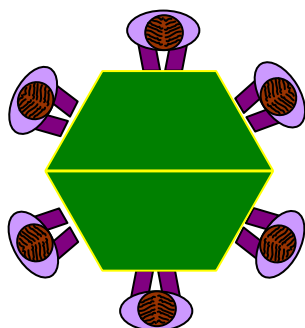


A finer point, however, in relation to the photograph above, concerns the importance of teacher training on classroom layouts and organisation - as discussed in Section 7 below. Ideally, the tables in this example should be rotated through 90 degrees - so that no student has his or her back to the front of the class.

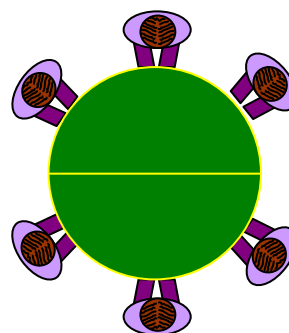
5. SEMI-HEXAGONAL AND SEMI-CIRCULAR DESKS

Semi-hexagonal and semi-circular desks are being used very successfully in other international contexts, particularly at lower-primary level. There is a strong case to be made for Turkey to consider adopting the use of these kinds of table, initially on a pilot basis, to learn lessons about suitability, affordability, and impact upon classroom practice.

Both of these types of desk lend themselves to be placed in pairs to create a group-working environment.

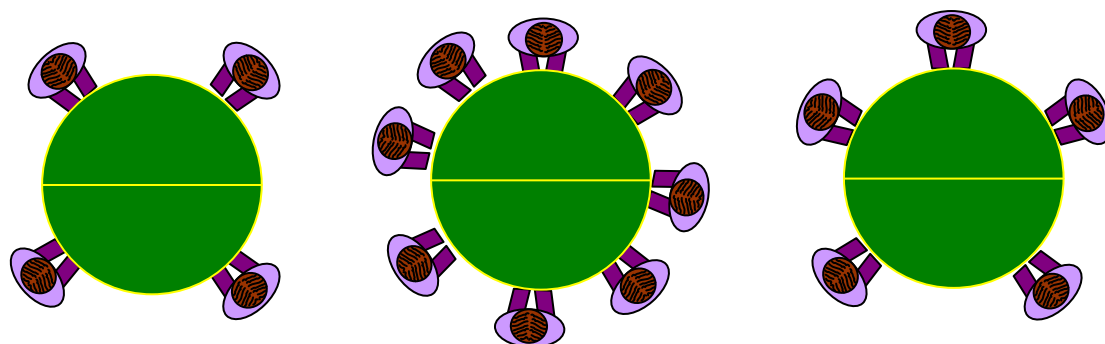


Two semi-hexagonal desks placed together comfortably seat six students.

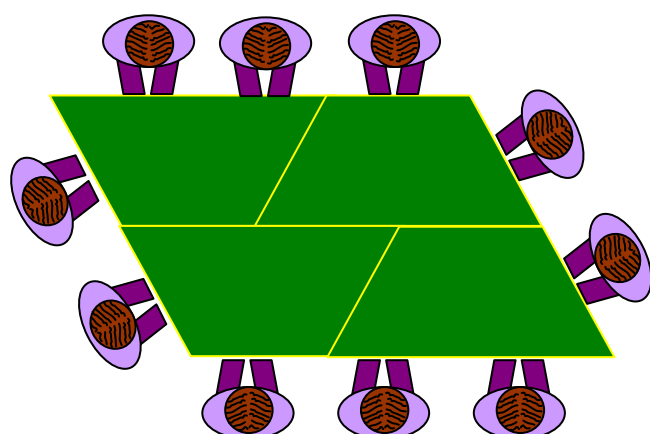


Two semi-circular desks placed together also comfortably seat six students.

The semi-circular desk has one important advantage over the semi-hexagonal desk, in that it can more-flexibly seat different numbers of students:

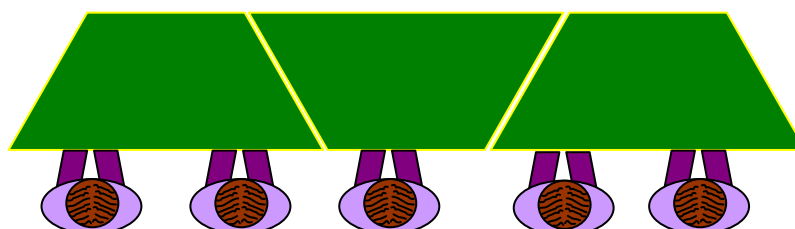


The semi-hexagonal desk, however, has three important advantages compared to the semi-circular desk. A first advantage is that a semi-hexagon is a shape that "tessellates": it fits together in different ways without spaces:

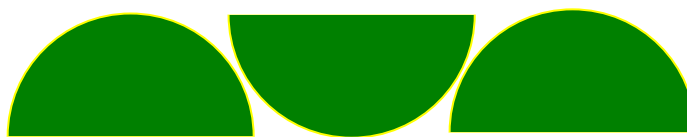


An example arrangement of four semi-hexagonal desks, to make a large group table comfortably seating ten students.

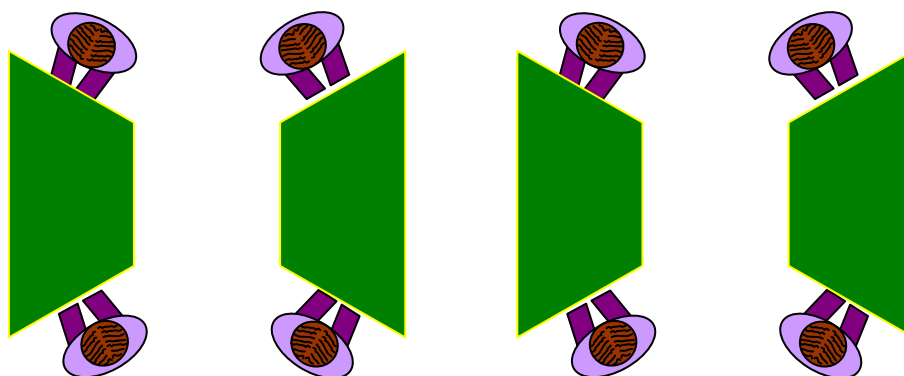
The second advantage of semi-hexagonal furniture is that it can also be arranged satisfactorily to make traditional rows, if this is required:



Note how the same arrangement cannot be achieved so well using semi-circular desks:



If desired, semi-hexagonal furniture can still be arranged to create formal examination conditions:



There is international evidence¹ to suggest that:

- Teachers, greatly prefer semi-hexagonal desks over traditional desks, after becoming used to them.
- Teachers are far more-likely to adopt non-traditional classroom layouts when this kind of furniture is provided.
- Provision of the furniture, even without teacher training provided in support, is capable of transforming the way teachers teach and move around the classroom, and also the way in which students interact with each other. Teachers are far more likely to be seen moving around all areas of the classroom, helping children on an individual or small group basis - as compared to situations where traditional layouts are found. This is a very positive development.



¹ SMAWFIELD, David & DU Yongfeng (2006) *Building Children's Schools: Transforming the Learning Environment: the Gansu Basic Education Project Experience and Beyond* (DFID/GBEP: Lanzhou, Beijing, London, Cambridge).

6. COST IMPLICATIONS

Based on international experience elsewhere², it can be stated with reasonable confidence that the costs of moving away from traditional combined bench/desk furniture, to more pedagogically appropriate solutions, should not be substantial.

If local manufacturers become involved in the local production of classroom furniture to newly specified Ministry standards, any increase in costs may be minimised or even entirely negated. This is especially the case if economies of scale are enjoyed, when substantial amounts of furniture are procured.

It is highly recommended that the Ministry of Education initiates several pilot studies to test different furniture designs in the classroom, and that it then uses the results of these studies to draw conclusions about comparative pedagogical benefits, weighed against costs.

7. IMPLICATIONS FOR TEACHER TRAINING

The introduction of more-appropriate classroom furniture is likely to have a far greater impact if it is linked to relevant teacher training.

Teacher Training has an important role to play:

- to raise awareness of the different ways in which a classroom can be arranged;
- to increase understanding of what different layouts might offer, including strengths and weaknesses, and the purposes to which they might be suited;
- to help teachers to know what to include and what to avoid in an effective classroom layout;
- to develop the confidence and skills of teachers to experiment with different classroom layouts and use these arrangements more effectively in support of their teaching.

The Support to Basic Education Project has made a significant contribution in this regard, through its development of two key teacher training handbooks in support of this kind of training:

² Ibid.

- *Classroom Layouts and Organisation: A guide for teachers, trainers, and policy makers*
- *A Practical Introduction to Group Teaching.*

These training materials are available on the SBEP website and have been disseminated widely. They have also been used successfully to support SBEP funded teacher training activity, and have proven utility.

8. CONCLUSIONS AND RECOMMENDATIONS

- On pedagogical grounds, at the earliest opportunity, Turkish education authorities should cease from procuring traditional combined bench/desks for Turkish primary schools.
- As a matter of priority, the Ministry of Education should initiate several pilot studies to test different furniture designs in the classroom. It should then use the results of these studies to draw conclusions about comparative pedagogical benefits, weighed against costs.
- It is highly recommended that piloting activity includes the trialling of semi-hexagonal and semi-circular tables in lower primary classes.

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