

Advice & Information on Dance Studio Specifications

What you need to consider when looking when designing a dance space and their specifications.

In a number of educational establishments where dance studios have been built, the dance teacher has found her/himself without sufficient specific knowledge or support to explain to non-experts the optimum, or the minimum, requirements in order to achieve a satisfactory solution.

Whether you are building from the foundations or reconstructing an existing building, there are physical requirements, aesthetic requirements and those related to health and safety. And each situation has its own unique priorities. This guide will give you some helpful tips on what you need to take into account.

Dance Studio Specification

Floor area

The amount of floor area required depends on three variables: the number of participants normally expected to take part in activities, the age of participants and the type of activity envisaged.

Realistically, in a cost-conscious world, it would be unwise to envisage catering for less than eighteen participants. In some teaching situations it is necessary to cater for thirty. The opportunity for large group dance activities, festivals and the like, is best catered for in spaces other than a dedicated dance studio.

Young children need to be able to jump and run about freely. This necessitates more space than their physical size might warrant. Teenagers and adults might be expected to be more disciplined, but nevertheless they need opportunities to travel and jump.

Different genres traditionally require varying amounts of space. South Asian and African genres, for example, are mainly centred on one spot; ballet traditionally makes frequent use of travelling on the diagonal. In dance technique classes a substantial amount of time is likely to be spent on one spot, but for periods there may be a need to travel unimpeded. Choreographic work has very diverse needs. There may be the necessity to split into groups, for more than one activity to be going on simultaneously, for individuals to stand back to have an outside view, or for one group to watch another.

A useful rule of thumb is to provide a minimum of three square metres for each participant of the primary school age range and five square metres for those in the secondary and tertiary age range.

Studios have been built with a variety of shapes, ovals, circular and with curving walls. Such spaces impose limitations; for many dance activities it is necessary to be able to locate front and for this reason a rectangular space is most useful.

Where secondary school class sizes are in the region of thirty, then 150sq.m are required. In other circumstances 10m x 9m is a minimum size*, providing space for eighteen adults to take part in a modern dance technique class and providing appropriate dimensions for choreographic work without a feeling of being cramped.

* A Level dance examinations require 10m x 10m, that is a dance space of 10m x 7.5m with space for the examiner to sit 2.5M back in order to have a wide view.

Floor surface

The floor is the most important attribute for the dancer, and for the dance teacher. Every step and jump is responded to by the quality of the floor underfoot. Every dance step or jump on an unyielding surface wears down the resilience of the body and brings the risk of injury, and the prospect of long term damage, closer. Local planners and architects too readily believe that they don't need expert advice. The dancer or dance teacher with an opportunity for investment in a dance studio is well advised to have reputable floor specifications to hand.

The ideal is a fully sprung floor permanently laid, and exclusively used, for the purpose of dancing. There are a number of fully sprung floor systems described in Foley, M Handbook for Dance Floors (London, Dance UK 1991).

What is described as a semi-sprung floor may be a necessary compromise, but it may be wise to turn down such an offer and hold out for a fully sprung floor at a later date. School gymnasiums of the 1960s and 70s often had semi-sprung floors, and many of these have, by now, lost their resilience. There are also roll-down floors, which have varying degrees of resilience, but most of these do not provide the full resilience essential for safe dancing.

Studio height

The height of the studio relates to the circulation of fresh air and to the opportunity to jump and lift. But the height requirement goes beyond the purely physical.

A plentiful supply of fresh air is necessary for the dancer to replenish energy quickly. But beyond the physiological need the dancer performs best with a sense of being able to expand into the space. The dancer not only moulds lines and shapes in personal space, but also creates implied lines, streaming out into the space beyond. Height is important for the expression of aspiration.

Physically it is important to have headroom so that the dancer never feels inhibited in achieving height. Acrobatics are not so frequent in the dance studio, but the opportunity for one dancer to stand on the shoulders of another and raise her/his arms in the air, makes a height of at least 3.5m ideal. This height gives an appropriate sense of spaciousness.

Vestibule

A space of 6-12 square metres within the dance studio, but separated from the area of the dance floor, is invaluable. The entrance to the studio should be **into** this area. This may accommodate a piano or other instrumental accompaniment and a secure electronic music source. Additionally there are sometimes one or two class participants or visitors who need to sit out in this area.

Even with full changing facilities participants may want to bring personal items and valuables in to the studio area with them, which can be left in this area within sight. Changing or discarding shoes may also happen here.

A boldly marked change of floor surface between this space and the dance floor is invaluable in separating the two areas, discouraging people from stepping onto the dance floor in inappropriate footwear.

Ventilation and heating

It is essential in a dance studio that there is local, accessible and quickly responsive control of ventilation and heating. The long-time practice of opening and closing the windows provides too uneven a pattern to provide a safe environment. 18 degrees Celsius is an absolute minimum, below which it is unsafe to practice anything beyond small, sedentary, gestural movement. (The Equity professional dancers agreement quotes 18.3°C / 65°F as the minimum.) Many think it wise to maintain a temperature of around 24°C and that 21°C is the minimum.

Extractor fans vary in their noise level, and this may interfere with concentration and communication. The noise of the passage of air through an extractor is related to the design and to the volume and speed of the movement of the air. Additionally the actual mechanism may be noisy, and this needs to be rejected. If there is an audience in the studio and stage lighting is being used there is a maximum need for ventilation. Too often unwisely chosen extractors have to be switched off at this crucial time because they are too noisy.

It is important that the heating system provides an even temperature throughout the space rather than sources of localised heat. The control of this heating source needs to be close at hand, but not where anyone can fiddle with it to meet personal, and sometimes eccentric, needs. Noise is not usually such a problem with heating systems as it is with ventilation, but it does need to be considered. It is important that the heat of the studio, or of a summer day, is never regarded as a substitute for a proper warm-up before dance activity.

Sound

It is important that sound accompaniment is heard crisply within the studio, but it is essential that it does not contaminate adjoining workspaces.

Sound insulation is a primary structural consideration. Cavity walls are invaluable, and these may have baffling material enclosed or on the surface. Inner and outer doors should be close-fitting and solid, with spring closures, and the space between such doors needs to be thoroughly baffled.

Within the space excessive reverberation from hard surfaces needs to be avoided. Partial wall curtaining has acoustic as well as aesthetic value.

Light sources; daylight/blackout

A major consideration is the advantages and disadvantages of daylight or of blackout. Where the main activity is dance training or recreational dance daylight is invaluable. If the focus is on dance as a theatre form then blackout may be essential.

Windows at eye level rarely help concentration on dance activity. Views provide a distraction for those inside and a temptation for people outside to stare in. On the other hand during daylight hours windows provide an airy, open atmosphere, which is conducive to concentration, though direct sunlight on the dancer may be a distraction. If windows are to feature, they may be best in opaque glass or located above eye height.

If facilities for lighting the dance are envisaged, then blackout is an important adjunct. There is nothing worse than working with a supposed blackout into which tiresome shafts of daylight penetrate from ineffective blackout. And it is very difficult to find effective and robust blackout, which can be readily closed and opened without rapid deterioration. A studio without daylight can feel oppressive, though this can be alleviated to a great extent by imaginative interior decoration. It has the advantage of allowing lighting to be used without the sometimes-tedious procedure of blacking out.

For dance performance a black box studio is ideal. For regular use in dance education and training daylight is a boon. The decision about priorities is crucial.

Lighting

A decision needs to be made on whether, either immediately or in the future, theatrical lighting may be installed. In any case good illumination for general purposes needs to be planned.

General light is usually by fluorescent tubes. These should be behind frosted glass panels to provide mellow and complete coverage. For the larger studio it is probably wise for these to be controlled in three or four banks. It is tedious to have each fluorescent light source separately switched. For the size of studio referred to above, two switches are sufficient, the first to provide minimal light, sufficient to see around the space, and the second to add full

illumination. Switches need to be close at hand inside the studio so that they may be switched on during activity without interruption; they should not be outside a door. The vestibule is the ideal location.

Appropriate theatrical illumination for dance has developed rapidly in recent years. It should not be assumed that a rig suitable for drama or other activities would be suitable for dance. Angles are crucial, side sources are important and there should be provision for gobos and special effects. Detailed technical criteria are given in Foley, M Dance Spaces (London, Arts Council of England 1994). There will be need for a secure housing of the controls from which there is an unimpeded view of the whole dance space. Storage of equipment will need to be considered.

Often, when on a tight budget, one thinks that once the studio is in use one can plan the later addition of lighting, thus reducing the initial cost. This is true of equipment, but it is not true of circuitry. The cost of putting in the necessary wiring and sockets and of bringing sufficient power to the site is much less if done at the outset than if it has to be installed at a later date. It can also be partially concealed in a more sightly fashion at the outset.

Interior design

It is important to realise that this plays both a functional role and an aesthetic one.

For many dance training contexts barres are necessary. These may need to provide space for every member of a class to stand at the barre. As well as barres along the walls, it may be necessary to have portable barres, which can be stored away. It is essential that barres are of a substantial, stable design, as they may receive considerable force or weight. Two barres at different heights is the most versatile arrangement in catering for dancers of differing heights. The top of the barres should range between 900mm and 1200mm from the floor, allowing the hand to rest at arms length without raising the shoulder.

Similarly, mirrors may be considered important. A complete wall of mirror up to the height of 2200mm, in which all participants can clearly observe their dance image, is ideal. There are, however, situations where being able to see ones image while dancing is a hindrance. Mirrors should have curtaining, which is independent of other curtaining, to cover them.

With regard to colour of surfaces, there is a dichotomy. Dark colours are best for theatrical lighting effects as they absorb light, avoiding spill and maximising localised definition. For everyday use light colours are best, creating a bright and stimulating working ambience.

Double-sided or duplicate curtains on heavy-duty runners may provide a partial solution. It needs to be borne in mind that these take up space and, in a studio of 10m width, it would be unwise to reduce this further with curtains that stand away from the walls.

To have versatile use with theatrical lighting, black curtains are often thought to be the only solution. Dark blue, dark green and brown are, in fact, serviceable alternatives, which are less oppressive in daily use.

A working dance studio needs a generously proportioned display wall, which should form an integral part of the design. This should not be for everyday notices, which would tempt people to enter to read them wearing unsuitable footwear, but for inspirational material: past dance performance publicity, designs which have movement quality or cultural significance and, most importantly, health and safety charts and diagrams. To avoid distraction this should not be on the wall in front of which a teacher habitually faces a class.

Seating

If the studio is to be used for performance then seating has to be provided. This can be for as few as fifty, in two rows of twenty-five. To warrant large numbers a larger performance space is necessary. Seating is most frequently provided on retractable tiers. There are stringent national and local design and safety requirements for this type of seating and for the access to it. If these are not met the space will not be licensed for public performance. Additionally it should be borne in mind that every row of seating provided cuts down the performance space. Too often dancers who have rehearsed a work for one size of stage find out too late that the stage dimensions have been reduced by seating or other hazards.

Access to drinking water

Working dancers need frequent liquid intake to replenish the loss caused by exertion. A drinking water fountain close at hand is invaluable.

Access for the disabled

It is easy to overlook provision for the disabled in studio design. Wheelchair users, in particular, need thorough consideration. In workshop activities they may need rather more space than other dancers. Changing and toilet facilities need to be near at hand and, if there are any changes of level, then a ramp needs to be provided.

Access to IT

Use of IT is becoming increasingly incorporated into dance teaching and should be considered from the outset. Plenty of electric sockets for charging cameras and laptops/computers is vital for dance learning.

Security

A dance studio is a major asset. It may, in time, contain much valuable equipment. Its floor surface can be easily damaged. For safety as well as security it is essential that it can be securely locked.

A space uniquely designed for dance

A multi-purpose or a dual-purpose space may seem financially expedient but it does not fully meet the needs of dance. The different demands on the floor surface make for rapid deterioration of a dual-use dance and drama space.

The need to learn to create and see dance in a clean-cut spatial environment limits the value of a dual-use space for dance and gymnastics.

Ultimately, the most important thing is for the dancer or dance teacher who is primarily concerned with establishing the new facility to insist that s/he is consulted on every decision however fundamental or trivial. New facilities don't come along often; there is nothing more disheartening than, 'if only they had asked me!'