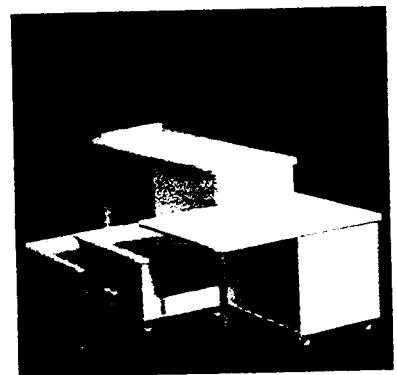


Chapter 5
The Products



Introduction

This chapter presents the 10 products designed by students at the Interdisciplinary Design Institute in the Fall of 1999 that attempt to address real-life practical concerns of adult day care providers and the environmental challenges many of them face. Each project will be discussed in the following way:

- a brief description of the project
- an outline discussion of how the project addresses each of the following
 - social legibility
 - socio-physical aspects of group size
 - universal design
- and a summative evaluation of how the project fares in regard to
 - participant control
 - social affordance
 - adaptability

The products themselves have been placed into three categories of design responses:

- Spatial Organization
- Partitions
- Activity Furniture

Spatial Organization Product:

Alcoves

Student: Deborah Bowers - Thomas

Description:

In recognition of the overwhelming public nature of many adult day cares, due to their use of large, open spaces, this student proposes that part of the perimeter of any large activity space be crafted into alcoves or booths. This creates a semi-private space that still allows for the desired visual surveillance for staff.

The spatial definition of such alcoves involves the use of tables and benches (or chairs) which defines a sub space. Lowering the ceiling and adding partitions, which together create a sense of a carved out space, enhances the intimacy of the setting. Being placed on the perimeter wall allows daylight to penetrate through the windows and highlight these alcove spaces but also because these alcoves are open to the larger activity space, the daylight will also spill into the larger space.

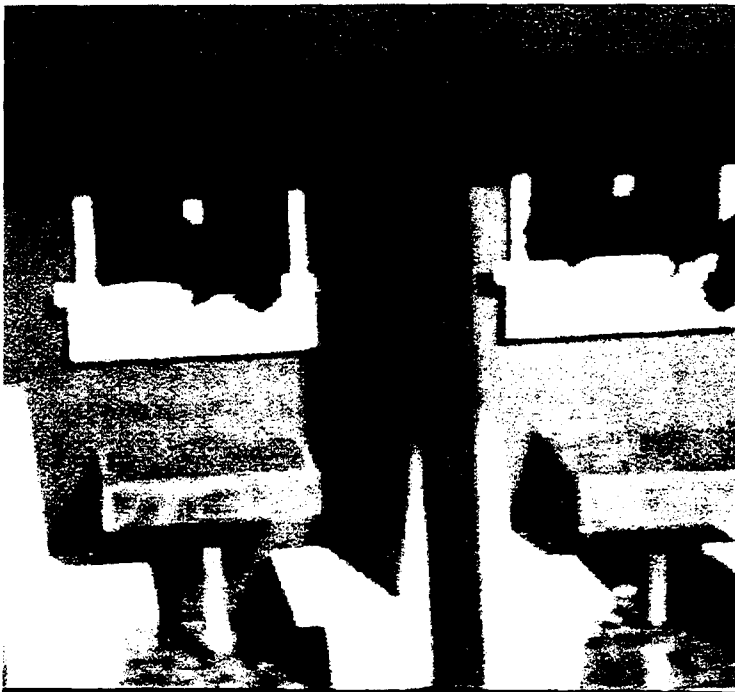


Figure 5.1:

Alcoves at the perimeter of large activity spaces help define semi-private spaces facilitating participant independence while allowing staff visual access to the needs of participants.

Adult Day Care Design Issues:

Social Legibility

Spaces for small groups are often more easily understood by people with dementia as they are more familiar. Creating intimate spaces for 2 –4 people creates a very familiar social situation and is more likely to spawn interactions of attachment. As developed by this student, booths are familiar for eating as well as activities such as card playing. It defines the group that is to be active and persuades all group members (due to its affordance of only a small number of participants) to participate in the activity at hand. Such an environment tends to encourage verbal interactions.

Socio-Physical Aspects of Group Size

Such a space and its associated furniture arrangement limit the spatial distance between participants to three feet or less. Such a spatial distance cues personal interactions where meaningful conversations are most likely to occur. Also, minimizing the distance between people and creating a space with an internal focus addresses issues of hearing acuity associated with many elderly. Similarly, the small group size afforded by the space allotted limits the distractions possible to interfere with hearing acuity. Such a small group size also coercively encourages active participation by all people present, increasingly the likelihood of therapeutic engagement.

Universal Design

- *Equitable Use*
Those that are wheelchair assisted may use the open end of the booth and feel a full member of the setting.
- *Flexibility in Use*
The design accommodates both left and right-handed use.
- *Simple and Intuitive Use*
A sitting surface and a waist-high surface are some of the most intuitive physical design elements to utilize as the first affords sitting and the latter affords a work surface.
- *Low Physical Effort*
Could be problematic getting in and out of the booths. Perhaps a different furniture configuration in these alcoves would be more appropriate.
- *Size and Space for Approach and Use*

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Open end is useful for wheelchair-assisted participants, but the booth idea may not respond well to issues of muscular-skeletal rigidity of the aging.

Summative Evaluation of Product:

Alcoves would enhance both a sense of participant control and social affordance by providing a semi-private space for participant use. Such a space would give a sense of privacy control and would cue more personal interactions among participants present. Being open to the large activity space would facilitate both vicarious participation in the large group activity as well as visual surveillance by staff.

Partition Product:

Interactive Wall Panel System

Student: Kimberly Ward

Description:

This product addresses the oft-missed opportunity to design partitions that are more than separators of space. Here, the student explores how such partitions could be designed as an interactive wall, with different materials and imagery symbolic of the locale in which the adult day care is situated. The wall is meant to be touched and engaged. It is thought that such engagement is likely to stimulate thinking and responsiveness and can help to recall fond memories as well.



*Figure 5.2:
Partitions need not simply be drywall separators of space; rather to convey of a surface that could provide therapeutic stimulation and interaction should be explored.*

Adult Day Care Design Issues:

Social Legibility

The idea of this product is to reconnect cognitively impaired participants with their larger social context but to do so in a manner that stimulates sensory engagement. There is a question as to the intuitive nature of such a design; is it independently recognizable that one is to touch and engage such a wall?

Socio-Physical Aspects of Group Size

Such a design is likely to facilitate one-on-one interactions between staff and participants. These types of interactions are advocated quite a bit in the dementia care literature. While time and resource intensive, such interactions triggered by this type of product would not prevent staff from being able to survey the larger group setting which this wall may enclose.

Universal Design

- *Equitable Use*
As it is a full height wall, a wide range of people could use it. Those that may not be able to touch may not be able to use. Would there be a way of introducing olfactory stimulation?
- *Simple and Intuitive Use*
How intuitive the interactive aspect of the design is remains questionable, particularly for a cognitively impaired population.
- *Perceptible Information*
Largely relies on sight and touch perhaps limiting its use to other populations.
- *Tolerance for Error*
The tolerance for error in the design is high as little risk is afforded.
- *Low Physical Effort*
The design requires little effort and the efficiency of the human action is inconsequential to the therapeutic benefit the design portends.
- *Size and Space for Approach and Use*
Being a vertical element, it is more difficult for those in wheelchairs or those with irregular postures (i.e. osteoporosis) to engage the design intervention, as they may need to approach from the side rather than from the front.

Summative Evaluation of Product:

Such an interactive wall promotes active engagement and sensory stimulation, two conditions associated with social affordance. However, the fact that its use is not particularly intuitive limits the degree of participant control it affords.

However, in defining space, it is likely to help cue an “active” space and should be utilized accordingly. Such a wall could be a moveable partition and this would enhance the intervention's' adaptability.

Partition Product:

Multivalent Partition

Student: Lee Hall

Description:

Recognizing the multi-functional aspect that is characteristic of adult day care, this student explores how a moveable partition could be crafted so as to afford multiple uses. Horizontal elements may be extruded and locked into place for a variety of purposes, including a work surface, book/supply storage, pass-through window and trash receptacle.

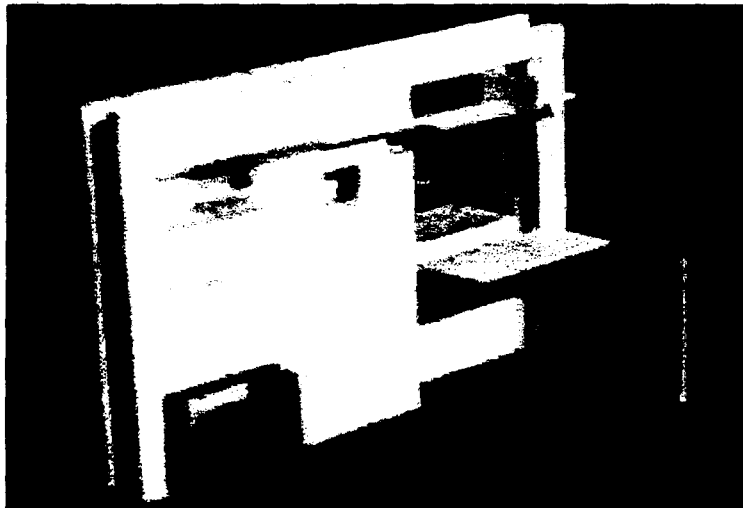


Figure 5.3:

A partition can do more than separate space; it can be designed to facilitate a number of functions which if broadly defined, can be utilized for numerous activities often associated with adult day care.

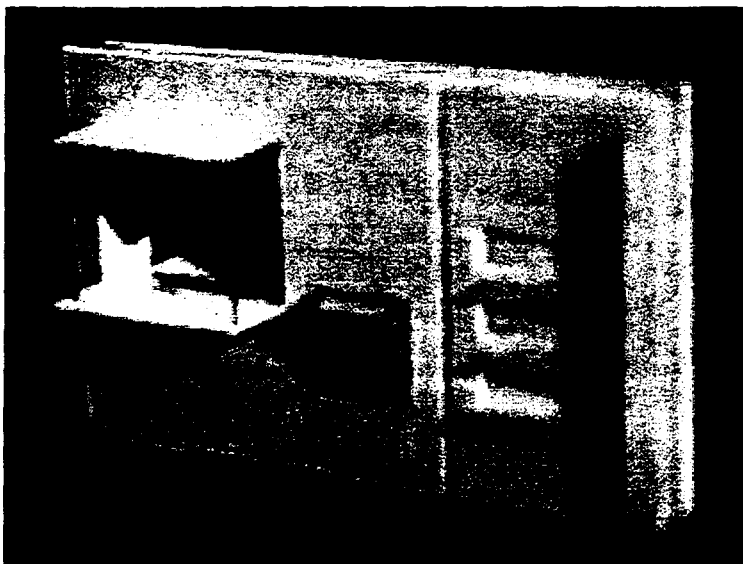


Figure 5.4:

Don't forget that there are two sides to a partition that can cue different types of activity.

Adult Day Care Design Issues:

Social Legibility

Horizontal surfaces are those which are most easily understood and cognized by humans as affording particular kinds of functions. It is clear that this design affords a work surface in addition to numerous storage surfaces. How exactly the various surfaces are extruded from the partition itself remain ill defined and are not intuitive.

Socio-Physical Aspects of Group Size

Such a design is likely to facilitate one-on-one interactions between staff and participants. These types of interactions are advocated quite a bit in the dementia care literature. While time and resource intensive, such interactions triggered by this type of product would not prevent staff from being able to survey the larger group setting which this wall may enclose.

Universal Design

- *Equitable Use*
While a large range of individuals can utilize the overall design, certain elements may not be accessible to some individuals (i.e. high shelves to those in wheelchairs).
- *Flexibility in Use*
The design is highly flexible being both moveable and adaptable. The window element best reflects this as it could be: 1) closed; 2) opened on one side and be a desk alcove; or 3) opened to both sides facilitating visual access and perhaps facilitating through wall interaction.
- *Simple and Intuitive Use*
The use of the intervention is actually likely to be quite complex (i.e. unfolding elements, recognizing how to assemble the supports and lock them into place, etc.). It is also highly uncommon and therefore probably not particularly intuitive.
- *Perceptible Information*
Once assembled, likely by staff, the surfaces are rather easily understood as to what they are likely to afford.

- *Tolerance for Error*
Some of the extending elements are likely to create hazards for the sight impaired or those with balance

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difficulties.

- *Size and Space for Approach and Use*

The desk/window element is relatively easy to access but some of the shelves may need a side approach by some individuals.

Summative Evaluation of Product:

This design is highly adaptable yet does not yield as much participant control as possible due to its non-intuitive nature. However, once set up it does afford independent access of shelves and use of the desk. Social affordance is really not addressed in this design, aside from the intrinsic manner in which partitions define space.

Partition Product:

Adjustable Shelves

Student: Ching-Chih Ma

Description:

Here, the student explores how partitions could be conceived of as a storage element affording both spatial definition as well as storage ability. The product then goes further in considering universal use, being highly adaptable to the needs of various populations by having shelves mechanized to adjust into a reachable zone.

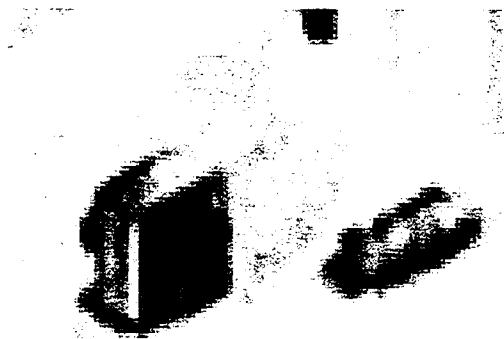


Figure 5.5:

Moveable partitions can be more than space dividers. Here, they are conceptualized as storage elements, always something in short supply in adult day cares.

Figure 5.6 (below):

Shelves are mechanized to shift into a reachable height as outlined by ANSI standards for accessibility.

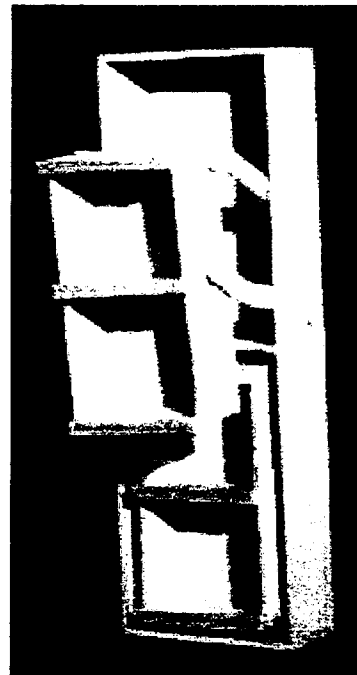
Adult Day Care Design Issues:

Social Legibility

Open storage shelves go a long way in cueing the expected behavior in a setting. For instance, whether the storage element is displaying dinnerware or books or craft supplies help trigger what the appropriate behavior is in the setting. Utilizing bookcases as space dividers also will encourage the development of smaller spaces and therefore activities involving smaller groups.

Socio-Physical Aspects of Group Size

This design really does not address this issue beyond the intrinsic use of the shelving unit as a space divider. This is likely to encourage smaller groups of participants, thereby reducing spatial distance and minimizing the likelihood of overmanning an activity.



Universal Design

- *Equitable Use*
As it is a full height wall, a wide range of people could use it. The design thoughtfully responds not only to those who may find a shelf to high, but also to those for whom some shelves may be too low to access.
- *Simple and Intuitive Use*
The mechanism to respond just to the added pressure of weight to move a shelf is interesting and quite reasonable.
- *Tolerance for Error*
One of the problematic aspects of this design is the engineering need to consider the shift in the center of balance created by the moving shelves. While a challenge, it is certainly rectifiable.
- *Low Physical Effort*
The design requires little effort and the efficiency of the human action is inconsequential to the therapeutic benefit the design portends. The user maintains their neutral body position and the element responds to their needs. Because of the weighting mechanism, minimal sustained effort is required to move the shelves.
- *Size and Space for Approach and Use*
Being a vertical element, it is more difficult for those in wheelchairs or those with irregular postures (i.e. osteoporosis) to engage the design intervention, as they may need to approach from the side rather than from the front.

Summative Evaluation of Product:

Because of the ease of use and relatively intuitive manner of use, this design intervention greatly enhances participant control and does so by a focus on enhanced adaptability. By suggesting the element could be moveable and assist in defining space, adaptability is further exemplified and social affordance is rendered. If the elements displayed in the storage unit are consistent with the anticipated behavior of a setting, social affordance will be even more greatly enhanced.

Activity Furniture Product:

Multi-Level Storage Carousel

Student: Nao Kamayama

Description:

This student's efforts centered on providing readily accessible resources to participants in an attempt to foster independence in activity. The entire unit is moveable; being on lockable casters which facilitates flexibility for staff but also considers safety issues. Once located as desired by staff, the unit offers three heights at which to store and display resources that can stimulate activity. These resources may include craft materials, books, games and the like. By being visible, these resources are much more likely to be independently utilized by participants.

Each level has a "lazy susan" mechanism by which to facilitate not only increased visual accessibility, but ease the burden of physical access to the items themselves (i.e. less reaching necessary). Once an item is selected and removed from the storage area, a small shelf is immediately adjacent, easing the task of resource removal. The bottom shelf is set at a height accessible for those in wheelchairs or otherwise seated; the intermediate shelf at a working height for someone standing. The top is approximately at eye level, allowing the unit to be used to provide a degree of privacy and spatial definition.

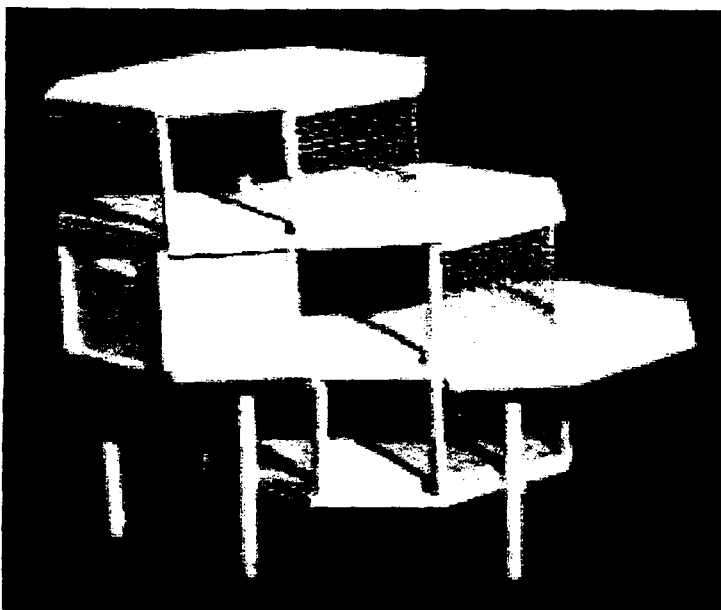


Figure 5.7:

This solution highlights two primary issues identified by designers as problematic in adult day care design: the provision of adequate storage; and making available resources immediately and independently accessible to cognitively impaired participants.

Adult Day Care Design Issues:

Social Legibility

By having resources visually accessible, the activities associated with those resources are implicitly cued. Thus displaying books and magazines in a quiet library area is more likely to afford appropriate behavior than is providing balls and beanbags. Props are some of the most salient cue-giving elements in the physical setting, and clear and redundant cueing afforded by props is essential for maximizing the saliency of the purpose of the place for people with cognitive impairment.

Socio-Physical Aspects of Group Size

This design really does not address this issue beyond the intrinsic use of the shelving unit as a space divider. This is likely to encourage smaller groups of participants, thereby reducing spatial distance and minimizing the likelihood of overmanning an activity. However, the specific resources that are provided are likely to encourage particular ranges of group sizes. Books, for instance, encourage individual activity; bean bags, larger groups.

Universal Design

- *Flexibility in Use*
The design accommodates both left-handed and right-handed access. The visual access increases the accuracy of use by participants.
- *Simple and Intuitive Use*
The design relies heavily on immediately accessible and unfettered visual perception by eliminating unnecessary functional complexity.
- *Perceptible Information*
The design communicates necessary information quite effectively, but is heavily reliant on visual perception.
- *Tolerance for Error*
The low, overhanging shelf could be a risk factor for the visually impaired.
- *Low Physical Effort*
Users of various abilities are able to use this design while maintaining a neutral body position. As discussed above, there is minimal sustained physical effort needed to utilize this intervention.

Summative Evaluation of Product:

This product does a nice job of addressing all three facets central to adult day care place quality. Focusing on adaptability, the product addresses the needs of a multiplicity of users to enhance their therapeutic functionality within adult day care settings. Because of its intuitive use, facilitated by its high degree of visual accessibility, the design promotes participant independence and assertion of personal control. By allowing visual access to resources to be utilized in a given setting, the product enhances the social affordance of the setting by providing cueing of the behavior expected to occur in the setting.

Activity Furniture Product:

Art Station

Student: Amy Palmer

Description:

Art and craft activities have been a programmatic staple of adult day care due to its therapeutic benefits, both physical as well as mental. This art station is an extremely flexible and easy to use design product with outstanding aesthetic appeal. The design affords numerous surfaces, both vertical and horizontal, on which to engage or display crafts. The student made the assumption that intergenerational care is a potential model for adult day care and thus addressed the needs of both the cognitively impaired elderly as well as the needs of youngsters. This is most clearly illustrated in the low shelf that is at an appropriate working height for a kneeling child. There is also consideration that any extending edge is better at a low height for the visually-impaired as their guide sticks are much more likely to sense such a protrusion rather than one at a higher height. The bullnose edges and rounded corners illustrated in this design reflect the depth of thinking found in this product.

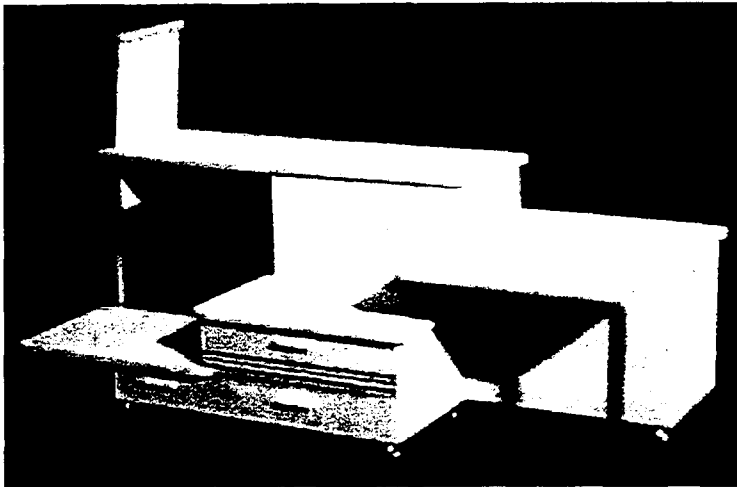
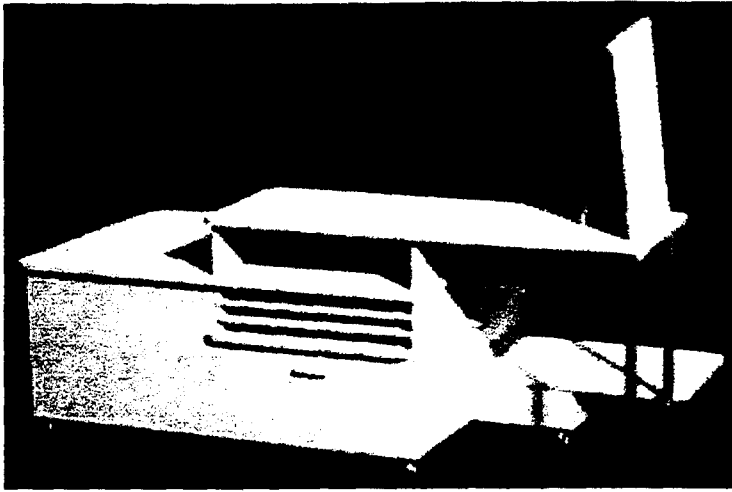


Figure 5.8:

Often the most troublesome problems render the most creative of solutions. This art station affords adult day care providers multiple opportunities for therapeutic engagement while being an impressive work of art in its own right. Furnishings of such functionality and aesthetic worth render a heightened sense of self-worth attached to a pride in place.



*Figure 5.9:
Shelves of different characteristics and dimensions clarify the purposes for each and what is likely to be found where. This actually increases the utility of the design over a uniform one as there is an intuitive rationality expressed in the design.*

Adult Day Care Design Issues:

Social Legibility

Props are some of the most salient cue-giving elements in the physical setting, and clear and redundant cueing afforded by props is essential for maximizing the saliency of the purpose of the place for people with cognitive impairment. Here, visual display of appropriate resources and surfaces appropriate for their use are integrated in an effort to effectively foster engagement.

Socio-Physical Aspects of Group Size

This design element effectively works for only an intimate group of 3-4 people maximum and ideally for one or two. Because of its formal characteristics, the design defines sub-spaces of territory that belong to particular “artists” using various parts of the station.

Universal Design

- *Equitable Use*
The design is useful and marketable to people with diverse abilities including children.
- *Flexibility in Use*
Multiple choices are provided in exactly how any one person could use this design product.

- *Simple and Intuitive Use*

DEMENTIA DAY CARE DESIGN PRACTICUM

While the formal order of the design is complex, the functionality of the various surfaces is actually quite simple and intuitive.

- *Tolerance for Error*
An interesting design decision is to place the overhanging shelf at a low height. Such shelves are dramatic design elements that are often troubling for the visually impaired, but here the designer has carefully considered the use of sight sticks and has responded accordingly.
- *Size and Space for Approach and Use*
Can be used by standing or seated, left-handed or right-handed user. Adequate space is provided for use of assistive devices.

Summative Evaluation of Product:

Here the focus is on adaptability in an effort to promote universal applicability. The resulting design is quite aesthetically compelling. Its use is highly intuitive, and by having supplies and work surfaces in such close proximity, the product maximizes participant control and engagement.

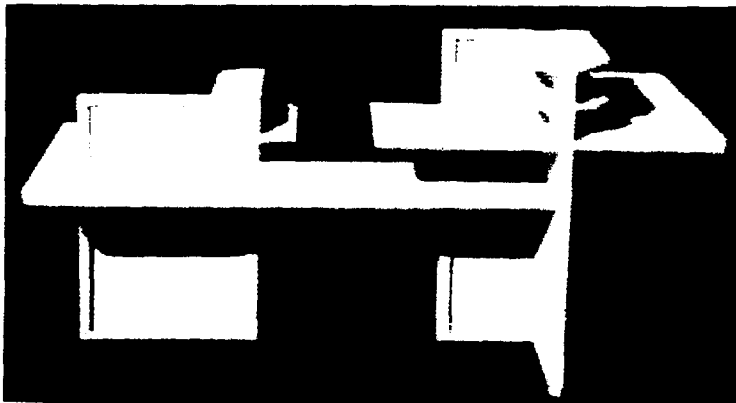
Activity Furniture Product:

Multi-Level Work Station

Student: Cory Nelson

Description:

This design focuses on the provision of several sorts of therapeutic activities: crafts, reading, and office work. Rather than occurring on a folding table that also serves dinner, this workstation recognizes that many of the above-mentioned activities are more individualistic in character and deserving of a physical element that bespeaks that character. The vertical elements are minimal in nature and serve both to structurally support the station as well as provide spatial identity to the different work areas of the station. The various horizontal elements each create a different work surface. Each work area also has immediately adjacent to it, an area for storage of appropriate supplies.



*Figure 5.10:
Useful for multiple therapeutic activities, this furniture element is not only functional but also aesthetically pleasing.*

Adult Day Care Design Issues:

Social Legibility

As with an office workstation, this furniture element helps define a space of its own, thereby enhancing the user's sense of privacy and territoriality. The horizontal surfaces are at heights that are intuitive in eliciting appropriate use. Because resources appropriate to the activity are immediately adjacent to the work surface, appropriate behavior is encouraged.

Socio-Physical Aspects of Group Size

This design really does not address this issue beyond the intrinsic individualistic use of the element. This is likely to encourage one-on-one engagement and a high probability of active engagement in the task at hand.

Universal Design

- *Equitable Use*
The surfaces at various heights do not allow identical but rather equivalent use and in their integration within one unit, works to avoid stigmatization of groups.
- *Flexibility in Use*
The design accommodates both left and right-handed use and provides for continued use despite participant changes.
- *Simple and Intuitive Use*
Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
- *Tolerance for Error*
Elements are not particularly well organized in terms of use to eliminate potential errors.
- *Size and Space for Approach and Use*
There is clear line of sight to important elements for any seated or standing individual. Surfaces are within comfortable reach.

Summative Evaluation of Product:

Again, this design focused on providing a furniture piece that is adaptable to a wide range of needs. Having the potential to serve a number of user groups in various capacities, the design also gives a heightened sense of personal control to participants as resources are immediately accessible and therefore easy to use. By making success in activity completion more likely, this design also furthers social affordance of the place as a whole as self-identity is enriched.

Activity Furniture Product:

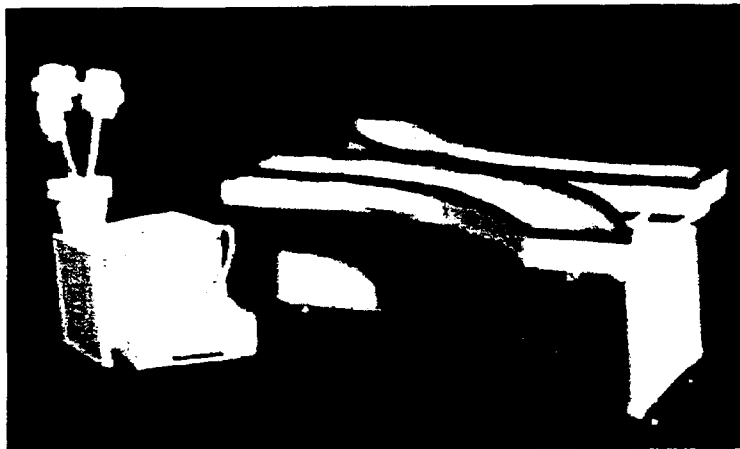
Planting Beds

Student: Angela Feser

Description:

In many adult day care centers, provision for outside activities is often not made. This may be due to factors as different as budgetary restriction or simply not having access to a secured outdoor area. However, for many older adults, garden activities have been found to be quite therapeutic and this student explores what a planting bed may be like for indoor/outdoor use.

The intervention is symmetrical, having two curved yet mirrored elements. The curved potting bed is placed at a height appropriate for wheelchairs with a protective bullnose edging to prevent injury. Where the curves separate from one another, there is a storage space for gardening supplies. There is also a separate tabula that provides additional storage. Both elements are movable, with lockable casters.



*Figure 5.11:
These planting beds offer great
therapeutic benefit.*

Adult Day Care Design Issues:

Social Legibility

The curved shaped begins to define an individual territory that can be claimed by a participant engaged in gardening. However, without a vertical separation, it does not allow segregation or stigmatization between participants. The actual use of the element would not be clear until filled with dirt and

DEMENTIA DAY CARE DESIGN PRACTICUM

plants. Not all supplies would be readily accessible either (i.e. water – see the next design).

Socio-Physical Aspects of Group Size

This design really does not address this issue beyond the intrinsic individualistic use of the element. This is likely to encourage one-on-one engagement and a high probability of active engagement in the task at hand.

Universal Design

- *Equitable Use*
One singular height is difficult for accommodating wheelchair assisted, seated and standing individuals equally.
- *Flexibility in Use*
The design accommodates both left and right-handed use, although right-handed use does seem preferred as each curve is in that direction.
- *Perceptible Information*
The storage areas between the curves are not clearly understandable or present and the association of the tableau with the planting bed is not intuitive.
- *Tolerance for Error*
The design minimizes hazards and the adverse consequences of accidental or unintended actions.
- *Low Physical Effort*
User maintains neutral body position, as opposed to typical gardening, facilitating the task at hand. The swooping curve makes more surfaces within reaching distance.
- *Size and Space for Approach and Use*
While easily approachable and useable by the wheelchair-assisted, the uniformity of the design suggests that others may have a more difficult time utilizing this design. Are other similar designs then provided for these other populations?

Summative Evaluation of Product:

This design focuses on creating a place for independent gardening by the wheelchair-assisted. Yet even in this narrowly defined way, it is weak in several respects. While some participant control is granted as discussed above, the lack of all the resources being provided in this specific intervention renders the possibility of remaining reliance upon

staff in activities that could very well be independent. The adaptability of the design again is reasonable, but could be enhanced as identified above. Finally, the social affordance of the design is good, in that it affords a definable territory for users and promotes communication between users, but it does not enhance the control of visual access.

Activity Furniture Product:

Potting Station

Student: Anne Hanenberg

Description:

This design follows the lead of the previous design in an attempt to bring the outdoors inside. However, this design does not limit itself to consideration of the wheelchair assisted, but recognizes the diversity of needs often found in an adult day care. This is evident in the affordance of two different heights, one appropriate for seated individuals and the other for those in wheelchairs. There is also evidenced an awareness that people favor different hands and thus the potting station is open to each side, affording access from the direction one prefers.

This design attempts to provide as many resources as possible to users, limiting the dependence on staff. For instance, there are closed and open shelves, facilitating appropriate storage of items. There is also water immediately provided at the point of use. Different surface types are available: flat, ridged, and grated. All in all a strong design product for adult day care providers' consideration.

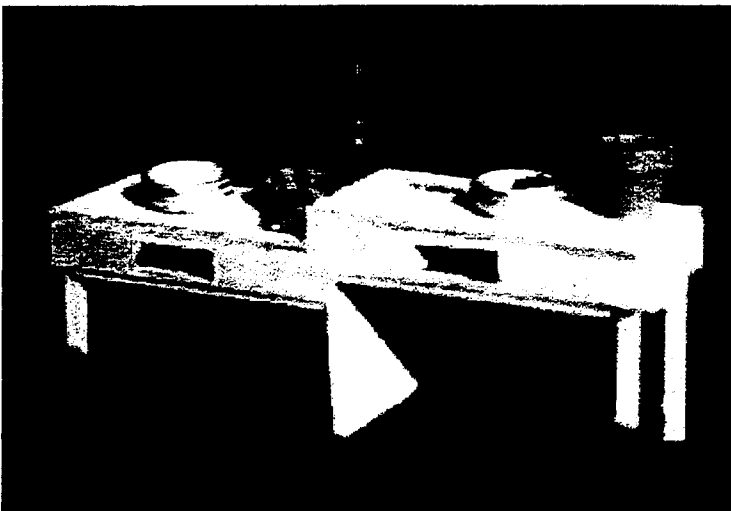


Figure 5.12:

Comparing this potting station with that in Figure 5.11 illustrates the difference in design philosophies in which here is exhibited a desire to provide equitable use in a manner which recognizes differences. This design is thus more inclusive than the previous design.

Social Legibility

As enough supplies are easily visible and accessible, it is possible that this station may be more easily understood than the previous design. The design defines two adjacent spaces, promoting territoriality, but also promotes communication due to the lack of a vertical element that would separate the halves.

Socio-Physical Aspects of Group Size

This design really does not address this issue beyond the intrinsic individualistic use of the element. This is likely to encourage one-on-one engagement and a high probability of active engagement in the task at hand.

Universal Design

- *Equitable Use*
Recognizes the differences between those in wheelchairs and those without.
- *Flexibility in Use*
The design smartly accommodates both left and right-handed use.
- *Perceptible Information*
There is excellent provision of visual information, from the uncluttered top to the open storage shelves for tools.
- *Tolerance for Error*
The student went to such detail as to discuss how the water temperature is abated.
- *Low Physical Effort*
User maintains neutral body position, as opposed to typical gardening, facilitating the task at hand.
- *Size and Space for Approach and Use*
The product is easily accessible and could easily be used from a front or side approach. Its compact design makes everything in close reach and differences between participants could be easily addressed as verbal and physical communication is afforded by the design.

Summative Evaluation of Product:

DEMENTIA DAY CARE DESIGN PRACTICUM

This design addresses the three central qualities of adult day care place quality quite adeptly. First, the element is so legible that it renders a high level of participant control and independence. It smartly addresses the diversity of needs found in adult day care rendering the design high marks for adaptability. Third, because it is so clearly understood and easily useable, the likelihood of successful experiences occurring there are high and therefore social affordance is enhanced.

Activity Furniture Product:

Barbecue

Student: Myah Houghten

Description:

This product attempts to provide a therapeutic activity center in a situation often overlooked in adult day cares – that of the great outdoors. This student decided to take a look at the celebratory outdoor activity of an afternoon barbecue. Recognizing not only the issues of an outdoor environment but also the safety concerns associated with a cooking environment for those with cognitive impairments, this design provides a smartly designed product that could be utilized either as an outdoor barbecue or stimulate conceptualization of a better indoor therapeutic kitchen set-up.

The grill itself is centralized in the intervention with a downdraft vent built-in, clearing the area of any obstructions. The controls for the grill are in the front, reducing the risk of burn. Worksurfaces are available to either side of the grill, for easy use by right or left handers. Drawers are on roller-type slides and provide storage for immediately necessary supplies. The lower drawers afford vertical storage, rather than hiding horizontally stacked material.

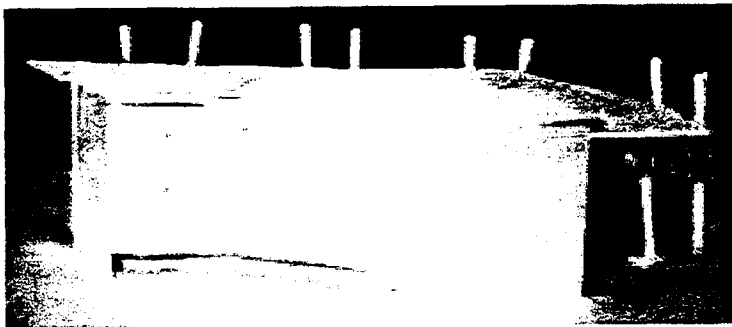


Figure 5.13:

The barbecue has many therapeutic and safety concepts as that of a therapeutic kitchen. If one can do it inside, why not outside?



Figure 5.14:

The work surface of the grill is at a more appropriate higher height than the serving surface, which is appropriate for wheelchair users and specially adjusted seats.

Adult Day Care Design Issues:

Social Legibility

The kitchen is perhaps one of the most archetypal spaces known to humanity. It is easily understood by most people and therefore triggers many appropriate social behaviors.

Socio-Physical Aspects of Group Size

This design defines itself as appropriate for only a small number of participants (2 – 6 participants). Some participants could be cutting vegetables or washing utensils on the backside of the grill while one or two participants with a staff member could be using the grill or the adjacent work surfaces.

Universal Design

- *Equitable Use*
Some wheelchair users may find use of the grill difficult as it is positioned on a concave curve without any recess provided for wheelchair entry.
- *Flexibility in Use*
The design accommodates both left and right-handed use.
- *Simple and Intuitive Use*
The design is relatively intuitive, although with any control devices, cognitive impairment may encumber the ability to link a control to a particular function.
- *Tolerance for Error*
Controls are provided with a remote switch allowing staff to control when the grill is used.
- *Size and Space for Approach and Use*
As mentioned, the concave design makes the grill more difficult for wheelchair users to use as they are forced by the design to approach it from the side as there is no set back to accept a front entry.

Summative Evaluation of Product:

The greatest aspect of this intervention is in its social affordance. It is easy to imagine how such a product would encourage active participation in cooking activity and in simultaneous conversation. Its adaptability is adequate, although at points, concern for one group of people or another seems compromised. The least effective aspect of the design is in how it fosters participant control.