

GROUP DIFFERENCES IN GRADUATE STUDENTS' CONCEPTS OF THE IDEAL MENTOR

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Graduate students differ in their conceptualizations of mentoring. This study examined the relationship between students' demographic and academic characteristics (age, gender, citizenship, academic discipline, and stage of persistence) and their preferences for three styles of mentoring assessed by the Ideal Mentor Scale (IMS): Integrity, Guidance, and Relationship. Students enrolled in Ph.D. programs at one of two Midwestern Research I Universities ($n = 537$) completed the IMS, rating the importance of each of 34 mentor attributes on a 5-point likert type scale. MANCOVA yielded significant differences for demographic but not academic variables: women scored higher than men on Integrity, international students scored higher than domestic on Relationship, and age was inversely related to Relationship scores. No group differences were found on the Guidance scale. These findings indicate that graduate students' perceptions of the ideal mentor are influenced somewhat by major socio-cultural factors, but also suggest that individual differences may play a larger role.

KEY WORDS: mentor, graduate students, gender differences, age differences, foreign students, questionnaires.

2000; d S u , 1995). d h , - , h ll , u , l y , u l , , fi m , d/ h h du ud (G d u , 1995), d h l m ud ' h qu l y h du (K z d , 1976; u d ull , 1998). O ll, h m m h m d du ud mmu l ly d ly, d d h d (, 2003). y d h l m , h qu l

*D m y h y, h y m .
** dd d :G l . , l h h h , D - m y h y, h y m , 54 W O Su 14, S u h u l , m 05403-7167. E-m l: l. @ m d .

h m m d l m ll d d d u h
 du ud d. Whl h m m d
 h d l (, 2003; Wld d S h u, 1991),
 u l h h d fi h d l m l
 d d m h d m l l du
 udy. h l u d ll m d h , h h
 m d u m h y.

GRADUATE EDUCATION, DEVELOPMENT, AND MENTORING

G du du d l m l .D l ud
 d u h d d m h ly h u h
 h d d l : d du m ,
 dd y, d m l h d (, 1993). h
 m h fi y d l du
 h h h ud ' l h m m h h l d
 d m mmu h u y (). h h , h
 ud d l l fil h h ud d ul y
 h h d m d d m h ll h m h
 mmu fi h . d d l
 m h m u l m h m d h m
 dd y h h m y h qu l d d h
 d l m m d m d y d l h.
 mmu y m m h d y m h ' ,
 fi l h m dd y d d h h d
 h d . h u h u h d fi
 h u d du l l d h fi l h
 ud d m y d mm . h fi l du
 h l, " h ul y-m l h h m l ly h
 m l " (, . 241).
 (1993) u , m l d
 l d l m . l. (1978) l m h z d h
 m m m l h ly dul h d. " h
 m l h h m m l , d d l m lly
 m , m h ly dul h d" (l., . 97).
 h m y lly m l , ld h h ' , d m
 u h ld h . h d lly l
 h , d , u l , u u " d m " (. 97), d
 d fi d d h h h l h h
 l , y m l l u h h - ud m l y -
 m l y . h m m d , " d
 l , dm l ld l " (. 99). h m h

m , l, l h m, d u d h m l z
h h y l h l d.
h d l y h fi u m d y m
d h l l m y h h l h (l., 1978).
h u u l u m - ' ' l h , h , ly
. h ' ' lly h h m l
m d h ldly m . h h , h m l y h l
h u h dul fi u d h ' ' ll l l
h ld m . d h m , h ' ' du lly
d l h u my d . ly, h
m d ' ' l h h . h u h h m -
' ' l h h u l l h h ' '
dul h d d d l h d y. d h h y, m
h u m ll h d fi ul y h dul d d
u d l m d du m d-l .
d d l , d d Sh (1988) d d ,
l. (1978) h y d h l m , u h
d l l m h . h m d l d
l u l z h fi m , llu d
h m l d fi :

d fi d u u h h m ll d m
d d l m d l, h , u , u l
d d l ll d l d h u m
h l ' l d/ l d l m . u h m
d u h h , l h h m
d ' ' (. 40)

h m h m d l m d m ,
u h l h , fi u m , d
m
K m (1985) . d h ul h h
, l d m d l m l . Sh u d
h m h h d y h l d l m
' ' m ' ' , m d h ,
u , l y, h , d h ll m .
u ' ' y h lly, m d l m d l , -
, fi m , u l , d d h . l. (1978),
d d Sh (1988), d K m ll h m d u l
u d d h qu l
m h m l ym . K m l-
d d, h , m flu h u
m l h .

D l du u qu u y d l ud
h d u d . h d m
m ? W d l (1984) u d h u ul
du d mu ulfill fi l l d u : l l
m u , d m l lz , d , l m d l, d
u l lz . h l m d d, h y , m y
d l d , “ u ly ‘ qu d’ ” (. 300).
F d h h d d fi ul u h d
u h y d h ld h l du ud .
l h , hl m m y h u d
l h , d u h d y mu ul m l m h
d l u lly d u ly d l l d. u -
h d G ll l d (1991) l h l d ll l u h
l h h d u h h d d
m .
d S u (1995), h h h d, h , “
h m y m d l u d du ud h d S ”
(. 1). l h u h l y d “m ,” h l
l h ul y m m d du ud m h
u d mu h du du (S u , , d
K u u, 1996). h m y d m h d , ul y d
du ud u y d l d y d
h m d u , d l m d
(G d u , 1995). S fi lly, d d h ul y
d d m h ll u d l
ud : h , , h ll , d u d
l y, u l , , fi m d h . Fu h -
m , du ud d h l h h ul y h
l m m d m h qu l y h du
(K z d , 1976; u d ull , 1998).
ly, m h l u m du du
um h h ud ’ m y h d m
h h h m h m - ‘ ‘ l h uld h uld
m d. Wh l u h m y m u h m -
m d l d m m u h m - ‘ ‘ m -
l y d h u h l h h du
ud d h h d , ll du ud d h
d m . l h ll du ud
h d m . du ud h m ,
m h m fi h m l h d . O h
h h d, ud m h m h h
m lly lu h m. O h m y m m l y d

- d m y. u y h m
 du ud , u d ull (1998) u d h h l d
 d h l l y m , h y ly m d u 21%
 h m du ud d h du du h l.
 O h lud d , d, m l y , u , - ,
 h , m h , d h l .
 l h d l ud .
 m m - m d l m y h h y du
 h S, d m d l lu d y ud d d l
 m l . Whl u h d l m l l h
 fi l, l h h y d h m y y
 d u d du l (. . , m . m , ld . y u).
 Su h u m y m u m h .
 h d m u u h uld h l h l d
 d l du u d d ud ' d h u h
 d l m . h d l S l (S; , 2003) l l l
 h u .

MEASURING MENTORING

h d l S l (, 2003) l - um
 u d d l. (1978) h y dul d l m d l
 m d y d d Sh ' (1988) m h m d l
 m . d l d h u l y m ly
 h m d d h d l du , m h
 h ud . m ll h h m, " y d l m
 uld..." d d u d l 1-5 h
 m l h d u l m m h
 .
 h S h h u - l h d m d ly :
 y, Gu d , d l h . h y u - l d
 m h h u d l d d mul d
 l m d l. S m l m lud , "... l m d l," "... lu m
 ," d "... d my d d ." Gu d
 m h h d l h h d
 y l du udy. S m l m lud , "... d
 m h l m u d d h u m m h ,"
 "... m m fi m l d my h l m," d
 "... m h m ul ." F lly, h l h u - l
 m h h m ud m l l h
 h m h l h l , l d l
 ld . S m l m lud , "... l m h / h

l, dm l ld l ,” “... l m u h /h
 l l m,” d “... h lu h hm .”
 h um lu l l y hl d m d du l
 d l ud , l h m m u
 m . G du ud , h d du u h
 S fi lly h y ud ulz h m.
 h ly h um y ld d h d
 h h l l m h d du ld
 ud , u h m d m ; . .,
 u u h m m ud m y
 h , d . m h h d fi “ d l
 m ” d y ; h , u u d d ud -
 m uld h d u h y m u
 d . h d , l d y u u du
 ud h ml ulz m ? F ml , d
 m , l ud , - d l d ud
 h ml d fi m l h u
 ud ? d fi u h u d d
 m m h l lm u d d
 h u h l , m h h du ud .

DEFINING MENTORING IN GRADUATE STUDENT SUBGROUPS

Gender

h ul h d m l m d d h
 d m h u m u h lu h
 d (E u d , 1984; F d l., 1996; K lly, 1982;
 l u l., 1998, lu h u ul h d d ul -G l ,
 d , 1984, u h, u d S du , 1996 d
 m, 1983). d m qu lly l ly h h y
 h h d m , h y h m l h
 qu l um d du , d h y ml
 m m l h (d S du , 1997).
 Whl h m d d m d m , h
 qu l m qu d
 m dm . udy ml d ml du
 dm m, (1988) u d h ml ‘ ‘
 d m y h l u (, fi m , l
 m d l d u l) m h m h m d d. , ml
 d u d m y h l u d
 m h m l h h d d m h h m ,

m , h qu l y h l h , ' ' l -
m , ' ' l .
u y d m m d l ul y, m fi ly m
l ly h m h h m h d l d h l
l y y, m l, h m h
d m u (F d l., 1996). W m , h h h d,
fi ly m l ly h h m u d h
' ' fi h m d h ' ' l udy
m d l h l u ul y ' ' , d d
u d m l , lud l l y h l u d
d u l' d l d , h ,
ll h, d - u h (l u, 1998). -
d d u d, h , d m l
: m m h m d h fi
“ - l d ” (. 320).
Wld d S h u (1991) dm d m um
du ud d m d d d h
m y m l m ly h
d d m m d m . h m ul m h
ly d m d m , u h m l d
m l ud d h u u h m l h
m h d ly. h m d h u u
h h m l ' lud d m h fl d h -
y l h h m y l - u ul lz (“ m-
h ,” . . , “ d u l d l mm h
ud ”), h h m l ' lud d m
u d d h m , h h fl d u h m '
l (h u h d d m l m : “ y
m d u h /h l d l mm h m ” d “W d u
my m l”).
d m m y d d fi m m
l h . ll (1983, . 99) umm z h u y 400
l : m m ly h l m d l l d h d h
l y , h y m d , d d m
u h . O h h h d, m u d m m
h l ul u m d u , ll fid ,
d h u d d , d l y
h h z . S m l ly, E u d (1984) d
d ud ' m u (h u h
h y u d d ul u d d): m l d
m h u d h uld d d h
d l m , d m l d l m d l h uld

d m h u ul l d ll .
 l udy u d h l m l ' ' d y h l
 u h m m ul h m l h
 (, 1996). l m d l m h m
 ul ly lu , d l u h (l , 1980; Gl ,
 1985; S z , 1981; ul , 1982). l l m d l, l
 u d l yl / lu d m m y m l
 du ud h m l (Gl).
 h h l l d d d m
 u u h d h m d d m h
 m d l d l yl d y h l u , h l m
 d ul m h h ld u h
 z d h d l m . Wh l m d
 m m d qu l , ' ' d d
 h ld d d l u h m l h .

ypo h i 1a: m ' l m d l d u m , (y) ll m
 m m h m . *ypo h i 1b:* m ' l m d
 d m (Gu d) ll m m m h m .

Citizenship

l du ud h d du l -
 h m ud u h y h h dd d h ll
 d u m d ul u . m d h m
 ud , l ud m y h d l yl ,
 d l l , h d ul u -
 , h h m l d u m ,
 ud , m fil d h h l
 u , u l E l h, d u l u
 m d h d m ud (d G , 2001; ll d
 d , 1992; d , 1991; m u u h, 2000; Sm h, 1991; W ,
 h m , d , 1992). h qu l l m y
 l ll l, ud l m d m
 d m u h lz d l fi
 m (d d u , 1994). d d u u d h
 l du ud , h d l ly h
 d m ud d m ul u , l l ly u
 h d l m . l ud m
 du ud fi ld ; h ul u -
 h d m mmu y h d m d u
 l.

l ud d h d m d m y h d
 h d l l h d (u , 1986; Kh , 1985).
 S fi lly, Kh u d h d h d m l m
 h d d h ud h ll : d h
 d h ud ; h ud ' h h d m
 , d h h h h d m d h du
 d l . l l u h fi m
 l du ud . , h u qu
 l d d m u d y h ul m h u
 h h m d uld d . S ud d l m
 h y d d m u y ll m l m d ul .
 l ud m y u u qu l h m
 d fi ul h m m l h (d G , 2001;
 d , 1991). Su h l u d m d fi ul
 u , d y W l. (1992), l u l y
 m l l du ud ' l y h
 d m . l ud m h fi lly d
 m h h l h m d l h l ll h m
 h l l h (d ; W l.).
 l ud qu udy h S, d m y
 d d u h d m h u .
 dd , h y h m u l d
 u h h S u , d h l ll h
 h h l h h u du .
 l du ud h d u d
 h l ll u u h m (d , 1991). h
 d fi ly h d ll u l ulfillm u l h
 l d m d h m (h , 2001).
 u E l h h l u m y l
 ud , u E l h fi y d - ul u l mmu-
 m ly mm , d h d ud ' l h
 h h h d (u , 1986; d G , 2001; Kh ,
 1985; d , 1991; , 1992; l, 1999; W l.,
 1992). hu , h ud d u l - d: h y m y
 d m h h l h m d l l u ll , u h y
 h h y d h m y h h l .
 ul , l du ud m y lly d m h
 d m ul u l y d h h u l
 m h E l h l u .
 y u h z d, m lly m lly, h
 ul u d l m l d y l ud ,
 d h m m y du l l h

d l m . F m l , K l u (1992) d d ll
 m m l u y h d l
 h h m h mu u l -
 ul u l mmu ll . , d G (2001)
 d d h ul u l m y h du
 ud u l . h y mm d d h u y u l
 fi l h m d l m d l m , d h h y
 um l d l u l m u
 h h d m d - ul u l y d
 l ud .
 h l u l ud d l m , d , d
 d u h h ud m y h l d
 fi m . G lly, h d d u l
 u m h u d h h u u m y
 m l h m m l h h ul
 h h m h . fi lly, h l u
 d l l l m y h ud m y m
 h m ul ly d m h uld d h m d
 h l h m d l l d mmu ll .
 ypo h i 2a: m ' l l m h ud ' l (l -
 h) ll m m l ud h d m ud
 ypo h i 2b: ul m h h m h u fi d m
 (Gu d) ll m m l ud h d m
 ud .

Academic Discipline

O ll, m ly 50-60% d l ud h
 m (- ll ., 1986; G ld d D , 2001; luy ,
 ll , d , 1985; , 2000; S d , , d Du ,
 1991). , h l l h d h m y d m
 d l (G ld d D). u y m h 4000
 d l ud ll d l 27 u , G ld d D
 u d h m ly 70% ud h y, l y, d
 h y uld d y ul y m h h h d , h l h
 m ly 40% ud m h m d h m y.
 h u l m m y ll h d l - l d
 d y G ld d D (2001) h h d fi m
 lud h d , . . , h d fi "m " d
 d ul y m m . Fu h m , h d d
 m ud d d l m y m y
 l d ud d l m yl . m -
 u h h d h l u .

h l u u l d d l m d
d m d l h h hl h d y l u h (d
ud , 1992; d d y, 1991; , 1993). F m l ,
h h y lly lly u d d d du d
l ly u u d l y- d h m d h l
qu ud - ul y . ly, h d hum -
h y lly du d h u , d l
u u d d m d du l d l y.
h fi ld- fi d u u u ly l d
m du ud u m u h m - -d , m l
, d . h , ud h u l h
m l m - -d d m l h d ud h
hum , h ud l ll (d
ud , 1992; d d y, 1991; Z , 1991). S ud h
hum m l ly d d m h
ud h , d h l h d (G ld d
D , 2001). d ud ' h d l y
d h d y h h fi ld (. . , d d y, 1991;
, 1993): " h d - d d m l [d m -
-d] fi , l , u d m l h d
z du h u fi ld udy" (. 127).
h l u d l y d u m ly u u l
d yl l m . l h h l u ,
m h d h h fi ld- fi h d m d du
udy uld l fi ld- fi d , d d
m . h d m y flu ud ' h
qu l d l m . S ud h m y d m
l ud h h h u h m h d -
d h qu - d. y h u h h d l ,
ud h hum d l m y m d
m h hum d l/ l h , ly.

ypo h i 3a: m ' hum d h ' '
(y) ll m m ud h hum d h u-
d h d l . *ypo h i 3b:* m ' l h ll
qu (Gu d) ll m m ud h u l
h ud h d l . *ypo h i 3c:* l h d l
l h h m (l h) ll m m ud h
l d du h ud h d l .

Age

d h 1992-1993 l d y S ud d
S udy du d y h l Edu S , h

m S d l ud 33 y (Sy , 1996).
 um ud ld u h l
 m d - d m l u h m l ym , l,
 h ld ; h d l m h
 du h l . S fi lly, h ll d u h (2000)
 d fi d h ll u d y ld ud : - d u m
 h l ud ; d u l d l um dul l
 d l ; h h d l- d l m
 d , d - l d dy m h ul y m m
 h m y y u h h ud , h m y um u h ud
 m m d h l d u h d d l
 ud .
 l.' (1978) h y uld d h m
 ul ly l ld ud , m l h u -
 dly m h " 30 ." h
 h , udy m d y y h l y du
 ud h u d y d l.
 u d - fi d d l (l
 m) ld ud (41-58; ul -G l l, 1984).
 S m l ly, u y du ud d fi d ' ' y ul y
 d m du d d h h h
 ly l d h d h h h l h lud d u
 h ' ' l d l m (W ld d S h u, 1991). Old
 ' ' l h l l l ly l l d l m
 u h : h l ll h , h fi ,
 h m l du l (. . ,), d
 m h h ud l . h u h
 ul h u h l l ld ud h
 h l dy l h d h , h d l d -
 l , d h d d d d l.
 u h udy m d m d d,
 h , m u l h h h du ' '
 , m , h.
 h d h ld ud h d du h l
 h y u ud , d h h d lud h
 m d y h h d fi d ' ' y ul y.
 d h h m du ud l m y
 y ll d .

ypo h i 4: h m m l (ll S l) ll -
 ly d h .

S ag o i nc

h u u d l d qu d ll
l d m (, 1993). h , h fi y
du udy l d d u m ll u l
mmu y, h dy m h z l d qu , d h l
y qu u d d d u d . h d
h m l h uld h h ' d l d
qu fi ll d fid h z d ym y
d h . F m l , h ll d u h (2000) u d 3-
d m d u u y yl ud h u h h
m : E ly d , m d , h l .
h ly d h , h u h - m l ,
fi , d d d l d d . h m d
h , h u d l u d u d , d
h h ud m d u d m l d
lu h m l d. F lly, h l h l h
h d , u h ud ' d l ly l -
d d. h h , h m u m ly ul .
D , l d h (1997) d h h
y h y d . F m l , u ul d
fi u m y d y ud h l ul
d u u . d d ud , h , m h h
h d, m h d qu h h m y
u y d u my d d ud , u m h d
y h ud ly ul d d . h
h m ll ul d y u u (1997): "F ul y h uld l z
lly, m m y lu d h l l l d
l l z m d . , h y m y u d ,
u h , d , d " (. 3).
h h l " um" h fi
mm u d d h m y u m du u
m ll d m h m h h h yl h
d du l ud , d ll d ud
d h d m . S fi lly, ud h fi
, h du mmu y, m y u l z h d l
m m h h m h y uld m l l h .
S d- ud , h qu l d h d m
d l , hy h z d m h d l

. S ud h fi l h d l , h y
 d d , d m h h
 ud u ll u d h .
 ypo h i 5a: m ' l l m h ud ' l (l -
 h) ll m m ud h fi d
 h d l d h ud h d . ypo h i 5b: m '
 ud l h ll qu (Gu d) ll m m
 ud h d h ud h .
 ypo h i 5c: m ' hum d h
 ' (y) ll m m ud h h ud

METHOD

Sample

h m l d 537 ud ll d h h h.D.
 d h h m l
 u h 635 lud d l udy (, 2000).
 h l udy h m d y l fi-
 l (n = 98) d d m h ly d h
 m l h u h u h ly . h m l 98
 u lud d h ly d h h -
 m l d m h ld , u h l
 h m l 537 ud lud d h ly . D m h
 h d d l y d l l.

Procedure

F m l ll ll h h h.D. d
 d h , l m l 1400 ud
 d mly l d. O h , 91 lud d u h y h d m l d
 h d , h d m ly l h m , h d m d d
 uld h d h dd d d. h m l d
 h m 1309 d l ud . S ud u d y m l
 d d m l qu , h h d d
 l . S hu d d d h y-fi ud u d qu ,
 48%

Instruments

D p n n a iab

h m y u m l h udy du ud
 d fi m . h l l lz d

LE 1. p D o phi h i i (n = 537)^a

l	S m l
[m (SD)]	31.2 (6.9)
G d (% m l)	55
z h (% - S z)	27
GS/G E D l (%)	
S l S	25
um d	24
Edu	19
hy l S	14
l l S	12
l h S	6
S (%)	
S 1: d d u m	19
S 2: d d y	32
S 3: m l h D	49

y- h d h m d y l fi l d d
m ly .
h m d m d m ly = 33.1 (SD = 7.8), [t(628) = 2.43,
p = .015].
h lud d m l 35% m l, $X^2(1, n = 633) = 11.95, p < .01$.
: GS/G E D l my d m fi ld (u l G du S h l ,
1998). S d h d l d .

h d l S l (S; , 2003), um h
m u u h ud ' h d l
m . h um l l ll h.D. ud , h h
h y u ly m l h . qu u
hy h l "d l m " d h qu l d l
ud d m m h d du l d h m
h uld . h h d d fi m -
d , h l d d m d h ud ,
l , l u h "m " m .
d d (2003), h S d l d u l-
l (, 1957) h y l m m d
h fl d y d fi h m (. . ,
d d Sh , 1988; K m, 1985; l., 1978) ll
m l lly m l (. . , l l l h ,
h d l du , d l y). h m dm d
m d m l d l ud . S l h
m m d h u d ll d m d h
m d l h u qu dm

h l . m ul m ly d h S d fi d y h
 m ly .
 h S 34 m , h h h d u
 h l m . m h h m, " igh now,
 h my m, my d l m uld..." d
 d h d l l m h m y l
 um h 5- l h d y l, " ll m " d 5,
 " m ly m ," h 3 d fi d "m d ly m ." E h
 h 34 m l d u qu ly h ly lly- d u - l
 l l d y, Gu d , d l h .
 h y u - l 14 m h fl hum
 d . h l m u m yl
 h z d y ul l d h d m m
 ' ' m d l , u h u h l . S m l
 m lud : "... m dul h h h l d
 d h m ," "... lu m ," d "... h
 ll u l y h h ." (2003) d h h l
 y (l h) fi h l (.90 m l d .89
 d m l).
 h Gu d u - l (10 m) fl m yl
 h z d y l, h d - h l h h d
 y l du udy. S m l m lud : "... d -
 m h l m u d d h u 'm h ," d "...
 h l m l m l my h." l h fi h
 l h h (.88 m l d .87 d m l ; ,
 2003).
 h l h u - l (10 m , u h "... l m h / h
 l , dm l ld l ," d "... l m u h /h
 l l m .") fl h m l l h d
 l y. h m yl d y h l h -
 z d y h h m l l , u h l
 , l , d l ld , h '
 ' ' . l h fi .81 d .79 m l d y
 (2003).

n p n n a iab

d d , d , u y z h , fi ld udy,
 u , d d h d
 d m h m. D h l h
 l l. d d d d ly d d
 u u d d h m u l , ly. h h d -

qu *iz n hip.* z h d h - d d qu .
 u h m y (73%) d S z , h l
 d h m z d d m (S z ; n = 391) . l
 (- S z ; n = 146).
ca ic Di cip in . D l d h - d d
 qu d d h d m , m, d
 m l z d d qu u fi m
 ly d y d l y h d ' fi ld udy. S fi
 fi ld h z d d h my d m
 fi ld u d y h u y du d y h GS/G E Su y
 G du E llm (u l G du S h l , 1998). O h 537
 , 134 (25%) S l S fi ld , 127 (24%)
 h um d , 105 (19%) Edu , 73 (14%) hy l
 S , 67 (12%) l l S , d 31 (6%) l h
 S . d hy h fi ld udy, h
 d m d l m d h d :
 um d (n = 127, 24%), S l S d Edu
 (n = 239, 44%), d u l S (n = 171, 32%).
i nc . u u y llm , d du
 d , d m l u m l (. . , m h m)
 l d z h ud ,
 m d d h ' (1993) h l l ' fi .
 S ud h fi y z d S l [' , "
 d d u m " ; n = 102 (19%)]. S ud m d y
 h u h m d d y—u u lly h ul m -
 h m qu l y — l fi d S 2 [' ,
 " d d y;" n = 170 (32%)]. h h
 " d d y d d h d l fi d S 3 [' ,
 " m l h D ;" n = 265 (49%)]. d d d
 d h d d l , d d l , d h
 d l 2.

Statistical Analysis

ul ly (O) u d
 h hy h h , du ud , d , fi ld udy,
 , d z h u uld h l d h
 h d fi h u d m . ly
 lud h l d u u d d
 l , ll h h l d m d

LE 2. dju d G oup M d d d D vi io o h ov i d o h h D p d V i

	G d			z h			S		
	I (n = 244)	F m l (n = 293)	S (n = 391)	- S (n = 156)	I (n = 102)	2 (n = 170)	3 (n = 265)		
I	30.84 (6.55)	31.44 (7.24)	31.38 (7.38)	30.61 (5.57)	28.00 (5.93)	30.58 (6.94)	32.77 (6.84)		
y	3.95 (0.56)	4.21 (0.53)	4.13 (0.51)	4.00 (0.65)	4.13 (0.49)	4.05 (0.56)	4.10 (0.58)		
Gu d	3.78 (0.62)	3.84 (0.70)	3.81 (0.64)	3.82 (0.72)	3.88 (0.59)	3.88 (0.62)	3.75 (0.71)		
l h	2.32 (0.62)	2.22 (0.63)	2.16 (0.58)	2.53 (0.67)	2.41 (0.70)	2.31 (0.64)	2.18 (0.57)		

	d m D l			u l		
	S l (n = 239)	d du	um (n = 127)	d	5-	l : l, " : l,
I	32.21 (7.71)	32.98 (6.74)	32.98 (6.74)	28.36 (4.78)		
y	4.12 (0.54)	4.10 (0.56)	4.10 (0.56)	4.05 (0.58)		
Gu d	3.85 (0.65)	3.75 (0.69)	3.75 (0.69)	3.83 (0.66)		
l h	2.23 (0.62)	2.17 (0.61)	2.17 (0.61)	2.38 (0.64)		

o : y, Gu d , d l h u - l h d l S l . S l .
 ll m " ; 3, " m d ly m " ; 5, " m ly m " ; S d
 " d du m " ; 2, " d d y " ; d 3, " m l h d
 h ' = 0.4 m l . m l y, p < .01.
 h ' = 0.6 S . - S z l h , p < .01.

... h h S l).

RESULTS

Multivariate Effects

... (O) ... z h , fi ld ... S l ... l ... (p - lu W1 ' l m d > .01 ll) . S fi mul m u d d (W1 ' l m d = .97, F(3, 514) = 5.62; p < .01) d z h (W1 ' l m d = .94, F(3, 514) = 11.70; p < .01). h mul m fi ld udy d fi .

Univariate Effects

... (O) h u ... z h , fi ld udy, d ... S l , h h ... S S l l (y) ly l d fi m ... F m l ud d h y ... (d u d = 4.2 ... d = .4). d u d ... S l l . h m m , ... S S l l 2 (Gu d) ly l d fi m , ... Gu d .

h S S 1 3 (l h) ly l d fi m
 z h , $F(1, 516) = 20.43; p < .01.$ l ud
 d h l h l m m h d d h S z
 (d u d = 2.5 . 2.2; h ' d = .6). z h u d 3%
 h S l 3.
 dd , h fi h S l 3
 m , $\beta = -.01, t[516] = -3.19, p < .01.$ d S l 3
 fi ly l d ($r = -.18, p < .01$), d h h
 , h m m h l h l
 d d.

DISCUSSION

h h fi ld m h u l d d fi h
 y m m . E h l
 d fi d d m h , d d ly ll l
 m u . h l l d fi h d h
 mmu h h fi ld u h h l u u
 h m y h m. Wh m m h ll- m
 d fi u d d h d y u m
 h u u d du l . h udy, d du l
 d fi " d l m " d, h u d y ,
 d , l y, fi ld udy, d . m
 ud h h u u m d h h h
 um ll d fi m u ld m ly fi d.
 D u u d m l . F ,
 h ud d, m h l l h
 m ' m d. S d, m l ud d d
 h d l m h d d m l ud . F lly, l ud
 d d m ' ll l l h h
 h m m m h d fi m h d d d m
 ud . S l h hy h u d, h . O ll,
 h d u d d h d d.

Age

hy h z d, fi l h u d
 d h l h l h S, u l z
 m h lud l l h . d d l -
 h d h m yl d y h S

l y d Gu d d, h . h ul
d l m , h h h m , m l.' (1978) h y dul
d l m ly dul h d, m du m ddl
dul h d. l h h l h l -
' d fi m h h y
Gu d l . d d, h m m h S l -
h l fi lly fl ' h y: " y d l
m uld l m h / h l, dm l ld
l ," d " y d l m uld h l m lz my l "
(, 2003). , h S Gu d m h d a
p i o i l fi d ' h y du h u
h S. h u d y ul -G l l.
(1984) fi d h ld y h l y du ud (41-58;
u m d d h ') d d
l m h y u ud .
, h lu h udy d fi l h
d h h S l h Wld d
S h u' (1991) fi d . h u h d l h
d d "Gu d " " y" S m l y (. ., h l
ll h , m l du l
, l h fi , m h ud
l h). Fu h m , h u h u d fi
l h d d " l h "- y m yl
l d h d d u l d l mm . h fi d
d h lly h d y Wld d
S h u (1991). m d h udy d h
u h uld d. F , h d l ud h m l
h h h d d fi d "m " y
ll du ; ll h l d m
l h . S d, h qu d h
h l h , h ud '
du h . h y l h h
m , h , m y h h ld y
d ld d l ud h m y m y
l d u m l h . Fu h h d d
u d d h d y.
h fi d h d l ud u h l h
ud d h d / d l m .
fi fi d d ll fi m lu u h

l h . , h hy h h m ll y l
m ld ud u d h udy.

Gender

y h d du ud d lly u d.
h hy h , h y l h S, h h
lud l m d l d l h , d m m
y m l du ud h y m l ud . , h
d h m uld h h h h Gu d l
(fl l) u d. h ul
h Gl ' (1985) fi d h m l y h l y du
ud d l m d l l h m m h d d
h m l . ul , Gl ' udy u d h m d
“ l u ” (. . , u h) , d “ yl d lu ”
(. . , l y m d m) m m h m
d d. l m d l , u h d h dm l l -
u m h m l h d y h
S y l , u h h l . h S d
fi lly dd l yl u h / m ly l .
 . m , h h Gu d d l h u -
l d d d m h . hu , hl m m y
m m d m d m m (. . , ll , 1983;
F d l., 1996; Wld d S h u, 1991), m lu h
d m m mu h m d .

Citizenship

hy h z d, l ud h d fi ly
m h lly l d h ud '
l (d y h l h l h S), m d h
d m ud . d d, h fi d h m u ll h
m m d h udy. , h hy h h
fi d m m m (S Gu d) uld
m m l ud u d. h
fi d h h hl h l d y
m y l ud , d h m y l u
y(d G , 2001; d , 1991; W l., 1992). l
l h m m y d d y m h
d . l ud m y l z h l h
m h h ulu , u qu d l m l
h ul ud (d G ; Kl u , 1992). h

S l h - y m h ly u qu
 fi d h m l d d m ud . h
 u ud h d ml m h y
 d Gu d u - l .
 h d h , h u l ud
 qu h u , m z 50 d u h
 d ul u l u d h m y m y h l d h S
 ll h d l m . h
 z h h l h l m d h h y
 u y m h l ud u h h
 l ly ud d h m z m y u ul y u l z
 du ud h d d m . m fi d
 l fi ud m h ll m fi d
 d d m ud h m ml ul u l -
 u d , d uld u h u u d d h dy m h
 m l h ul u .

Academic Discipline and Persistence

y , fi d d l m
 d d ud d fi ld udy
 u l h h l u d y h m d l
 d d fi d l ud ' . D l - fi
 d d d l d qu m d m u u
 d d h m du ud u m u h m - -
 y, 1991; Z , 1991). (d ud , 1992; d d
 d qu d ll l d m , m
 h l du m ll u l mmu y h fi y ,
 u d d d u d h fi l d
 (, 1993). h fi d d h u h h
 y u u d d m d d l ud d
 h m d d m , h u l d
 d l d . ud ' z h
 d m d h m
 m l y y, Gu d , l h . h
 d l m h m d h m - ul u l
 h h d m .

Summary and Implications

h m y ul h udy h ulz h d l
m y y , d , d z h , u y d m
d l . D m h u , m h
d m l fi , m d ud ' u h
qu l h m h l h h h m
l d l . h d m h u m y
h l flu u h y um ly m l
ud ' d y h h mm d du l um .
h fi d d l h m h y.
m h h m u h h d d y d
d Sh (1988), K m (1985), d l. (1978), h
h hl h d h d u m m h m. W h
h d , m m d h d l .
' (2003) ly udy d m d h d du l
d d l ud ' m . h u
udy d du h h l d m l fi h
d m ud ' m , y d d du l
d . h fi d d h d d l ud '
h m u m u d h
m h y , d , d z h u .
h udy l d m d h u d m d l
d h y d l h l h S, u
h Gu d l . h m Gu d , h h h
m l l m m , l ly
u du ud h u l d d m
u . h , d du l d m l y l l h
d m h d m u ud ' d m h
m Gu d .

Limitations and Directions for Future Research

h lu d m S u u
ud h udy lly l m ud . F m l , h
d m ' d m ' m h y l ,
h u h lly fi , m d (.2 5- 1). G d
u d u 2% h h l . h lu
d m l d d m ud
h l h l m l ly m d (2.5 .2.2), h z h
u u 3% h h l . d
z h d (= .4 d.6 d d z h

m d , ly) u h u d u
h l y ud , m (m u d y h
S); h , m y h u d l m h
d du l d l ud .
h h m l m y l m l z l y.
ll ll d h.D. m h u h h l
h y m h h du y. Su h u
l d d ; h , m y h.D.
h d m h y u . E l
fi d du ud h u d/ h uld
m d u u ly.
Fu u h m h fi d d h d
m yl . F m l , ud 'd fi h d l
m m h y d h h m , -' h ud .
Wh l h m y ud ' (2000) udy (78%) d h
d l m uld h ul y d , h ud d
m h l y d d l h l , u h h
h d m u y, -u y l . h d l
u d m . - m m y d ' '
l u h z h uld fi d u h , d h l
u h l y, , l h m (. ,
u l , h), u m
l h m h l l d d m yl
. E m h m h d l m h
l u d d h m u d u
l h y.
dd l h d d u h u d d h m l
ud ' d l m . F m l , h l h
m d d dm d d l fi . u
m ud ' d fi d l d d d
m ? "d l"m ly l h l ud h
h d du l l ?D h qu l d l m d u d
, m m h ll ly m
ud ' d ?F lly, m h h d l m u l
-d l z h m d u u d ll u m ? h
qu ll u h d u u d d h m
h m h du du .

ACKNOWLEDGEMENTS

h h d h h.D. d h u h
u d h u h l W. O' d l , d

u d y h l h m h y G du
 ll . h u h ully l d h S m
 u h .

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o ay' Doc o a Su n v a about Doc o a E uca ion (. hd- u y.),
 h h l u , h l d l h , .

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l h d l : F ul y . du ud . *ap n a h n-*
nua ing o h ocia ion o ac ica an o iona E hic, S. u , O.
Sy , . D. (1996). h m du ud — h ll u-
y? *ounci on a ua Schoo o unica o* 29: 7-11.
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(2n E .), y h , h , .
ul, S. (1982). *h h.D. Exp i nc: Wo an' oin o i w,* u l h ,
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h l ud : W , . ., ll , . K., E d , S. ., d G , . .
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d h 7, 2003.