



5HVHDFK \$UWLFOH

2SHQ \$

5FTUJOH UIF \$SPTT \$VMUVSBM \$MJOJDBM 6UJMN  
\*TSBFMJ BOE "NFSJDBO 5ZQJDBMMZ %FWFMPQ

7DPDUD \$YL ,WRKDN 5 ZFOHULU 0 \$EGDWOODKQJHOGGJHRPL -RVPDQ  
'HSDUWPHQW RI 2FFXSDWLRQDO 7KHUDES\ <RUN &ROOHJH 7KH &LW\ 8QLYHUVLW\ RI 1HZ <RUN \*X\ 5  
'HSDUWPHQW RI 2FFXSDWLRQDO 7KHUDES\ /RQJ ,VODQG 8QLYHUVLW\ %URRNO\Q %URRNO\Q 1HZ <RUN 8  
'HSDUWPHQW RI 3V\FKRORJ\ &KLOG &HQWHU \$O 4XGHV 8QLYHUVLW\ -HUXVDOHP ,VUDHO  
'HSDUWPHQW RI 2FFXSDWLRQDO 7KHUDES\ -RLQW SURJUDP )DFXOW\ RI 6RFLDO :HOIDUH +HDOWK 6FLHQ  
&RUUHVSRLQGLQDQW \$YL ,WJKDN \$VVRFLDWH 3URJUDP 'LUHFWRU \$VVRFLDWH 3URIHVVRU 'HSDUWPHQ  
1HZ <RUN \*X\ 5 %UHZHU %/9' -DPDLF 1HZ <RUN 86\$ 7HO )D[ ( PDLO W  
5HFHLYHG OGDWFK \$FFHSWGHG GDWH3XEOLVKHG GDWH 0D\  
&RSULJKW ( \$YL ,WJKDN 7 HW DO 7KLV LV DQ RSHQ DFFHVV DUWLFOH GLVWULEXWHG XQGHU WKH W  
XVH GLVWULEXWLRQ DQG UHSURGXFWRQ LQ DQ\ PHGLXP SURYLGHG WKH RULJLQDO DXWKRU DQG VRXU

\$EVWUDFW  
3XUSRVH DVVHVV WKH FURVV FXOWXUDO FOLQLFDO XWLWLW\ RI WKH 9LVXDO 0  
QRUPV IRU W\SLFDOO\ GHYHORSRQJ 3DOHVWLQDQW ,VUDHOL DQG \$PHULFDQ  
FRPSDULVRQV WHVWHG WKH H\WHQW WR ZKLFK WKH 90, VWDQGDUGL]HG 8 6 QRUP  
XVH ZLWK WKH DIRUHPHQWLRQHG JURXS ZLWKRXW WKH QHHG IRU FURVV FXOWXU  
WHVW VHQVWLWLYLW\ DQG VSHFLILFLW\ VXFK WKDW VWXG\ FODVVLILFDWLRQ UHVXO  
8 6 QRUPV  
0HWKRGH VDPH ZDV FRPSULVHG RI W\SLFDOO\ GHYHORSRQJ NLQGHUJDUW  
PHDQ SHUIRUPDQFH VFRUHV ZHUH QRW VLJQLILFDQWO\ GLIIHUHQW IURP WKH SXE  
3DOHVWLQDQW JURXS DQG VLJQLILFDQWO\ KLJKHU IRU WKH ,VUDHOL JURXS RQ D  
ZHUH KLJKHU RQ WKH 9LVXDO 0RWRU ,QWHJUDWLRQ DQG 9LVXDO 3HUFHSWLRQ WH  
7KH VHQVWLWLYLW\ UDWHV IRU HLJKW RI WKH QLQH FDOFXODWLRQV UHVXOWHG LQ  
UHVXOWV DQG WKH 90, VWDQGDUGL]HG FODVVLILFDWLRQ RI WUXH SRVLWLYH FDVH  
GHPRQVWUDWHG SHUIFW DJUHHPHQW EHWZHHQ WKH VWXG\ FODVVLILFDWLRQ UHV  
VSHFLILFLW\ UDWHV REWDLQHG IRU WKH ,VUDHOL DQG \$PHULFDQ JURXS ZHUH PR  
&RQFOXVZKAVH H\SORUDWRU\ ILQGLQJV PHULW DGGLWLRQDO UHVHDFK WR IX  
HPSOR\LQJ WKH 90, 8 6 QRUPV ZLWK RU ZLWKRXW FURVV FXOWXUDO DGDSWDWLR  
JURXS

.HIZRUGV FURVV FXOWXUDO QGDUGL]HG VHQVWLWLYLW\ FODVVLILFDQW PRWRU LQWHJUDWLRQ LV WKH  
DJUHHPHQW SHUFHSWLRQ DQG PRWRU VNLOOV > @  
VNLOOV LV LPSRUWDQW LQ DQG RI LWV  
,QWURGXFWRQ GHYHORSRQW RI DFDGHPLF VNLOOV DQG  
PRWRU VNLOOV ZHUH VHQVWLWLYLW\ RI @  
&XUHQWO\ WKHUH LV FRQVLGHUDEOH ZRUOGZLGH FRPLWPHQW DPROVHV  
FOLQLFDQV WR EHRPH UHVSRLQVLEOH VWHZDGV RI EHVW SDFWLFH DQG WR D  
HYLGHQFH EDVHG SUDFWLFH LQ SURYLGLQJ VHUFLHV > @ \$V SDUW RI WKLV WU  
FOLQLFDQV ZRUOGZLGH KDYH EHJXQ XVLQJ VWDQGDUGL]HG 8 6 WRROV ZLWK  
VWURQJ SV\FKRPHWLF SURSHUWLHV IRU FOLQLFDO SXUSRVHV ZLWK RU ZLWKRX  
DSSURSULDWH FURVV FXOWXUDO DGDSWDWLRQ  
QRUPDWLYH \$PHULFDQ GDWD IRU SXUSRVHV RI ORFDO SUDFWLFH ZLWK ORFDO  
SRSXODWLRQV DV ZHOO DV WKH WUDQVODWLRQ DQG DGDSWDWLRQ RI \$PHULFD  
LQVWUXPHQWV IRU XVH ZLWK SRSXODWLRQV VSHDNLQJ RWKHU ODQJXDJHV DQG  
IURBLVHUHQW XUVH DUH LVVXHV GUDZLQJ LQFUHDVHG DWWHQWLRQ LQ  
KHODWK UHODWHG UHVHDFK DQG SUDFWLFH > @ )LQGLQJV IURP FURVV  
FXOWXUDO VWXGLHV LQWHJUDWLRQ FODVVLILFDQW RQ  
GHYHORSRQW WHVWV DPROVHV FURVVHJUDWLRQ IURP  
EDFNJURXQGV PD\ GHVWUXUHGHG ODQJXDJHV > @  
FXOWXUDO SUDFWLFHV > @ WHVW PDWHUHOV RI DVVHVVLRQ VLVXDO SHUFHSWLR  
VRFLRHRQRPLF VWDWXV > @ DQG HOVHURPHQWDO DGLLRUWHVWLRQ IDFWRU  
HVHQGLKOLJKW WKH QHHG WR HQVXUH WKH WKLQJ WKDW WKH QRUPV IURP DQ  
DUH DSSURSULDWLYH FURVVHJUDWLRQ JURXS EHLQJ DVVHVVHG





7RWDO

~~6HQVLWLYLW\~~ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\

2EVHUYHG3XEOLVKRIGPV 3XEOLVKRIGPV 3XEOLVKRIGPV  
,VUDHOL \*URXS

%HORZ

1RUPDO

7RWDO

6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6SHFLILFLW\

2EVHUYHG3XEOLVKRIGPV 3XEOLVKRIGPV 3XEOLVKRIGPV  
\$PHULFDQ  
\*URXS

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6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\ 6HQVLWLYLW\

1RWH2EVHUYHG DQG SXEOLVKHG SHUIRUPDQFH EHORZ WKH QrupDO IXQFWLRQDO OLPLWV ZDV

GHILQHG DV D VFRUH 6' EHORZ WKH PHDQ

90, %HHU\ %XNWHQLFD 90, 9LVXDO 0RWRU ,QWHJUDWLRQ 7HVW 93 9LVXDO

SHUFHSWLRQ 7HVW 0& 0RWRU &RRUGLQDWLRQ WHVW



